

Final Examinations

of some governorates



on the first term
2022

1

Cairo Governorate

Manor House International School

Answer the following questions :

1. [A] Write the scientific term of each of the following :

1. A gas that turbid clear limewater when it passes through it for a short time. (.....)
2. A device used to measure the temperature of liquids. (.....)
3. The area of two bones meeting. (.....)
4. The amount of matter in an object. (.....)

[B] What happens when ... ?

1. Increasing the percentage of carbon dioxide in the atmospheric air of the Earth ?
.....
2. You touch a hot body by your hand ?
.....

2. [A] Complete the following :

1. The temperature of normal human body is °C.
2. In respiration process gas is consumed (used).
3. Locomotory system consists of two main systems, they are and
4. The measuring units of mass are and

[B] Mention one importance of :

1. Ribcage :
.....
.....
2. Ethyl alcohol.
.....
.....

3. [A] Choose the correct answer :

1. The mass of a body on the moon's surface is 10 kg, so its mass on the Earth's surface is
 - a. 10 kg.
 - b. 10 N.
 - c. 60 kg.
 - d. 60 N.
2. Myelin sheath surrounds the
 - a. nerve cell axon.
 - b. cerebellum.
 - c. spinal cord.
 - d. cerebrum.
3. is used to make the handle of cooking pots.
 - a. Iron
 - b. Copper
 - c. Plastic
 - d. Aluminium
4. Hydrogen peroxide is used in preparing gas.
 - a. oxygen
 - b. carbon dioxide
 - c. nitrogen
 - d. hydrogen

[B] Solve the following problem : [Don't forget to write rules].

If the mass of a body on the Earth is 18 kg. Calculate :

1. Its weight on Earth.

Rule :

Weight on Earth =

2. Its weight on moon.

Rule :

Weight on moon =

4. [A] Put (✓) or (✗) :

1. Heat transfers from cold objects to hot objects. ()
2. Ozone gas consists of 3 oxygen atoms. ()
3. The shoulder joint is an immovable joint. ()
4. The weight is the force that attracts the body towards Earth. ()

[B] Look at the following figure then answer :

- This device is
- The function of constriction is



Answer the following questions :

1. Choose the correct answer :

- Increasing the percentage of gas in the atmosphere leads to increasing the temperature of the Earth.
a. oxygen b. nitrogen c. carbon dioxide d. hydrogen
- All the following are from the components of the central nervous system except
a. spinal nerves. b. two cerebral hemisphere.
c. spinal cord. d. medulla oblongata.
- When a glowing magnesium ribbon is placed in a jar containing carbon dioxide gas the element that is formed on the wall of the jar is
a. oxygen. b. nitrogen. c. hydrogen. d. carbon.
- An object has the mass 36 kg, its weight on the moon is
a. 360 N. b. 36 kg. c. 60 N. d. 60 kg.
- From the immovable joints
a. joints between skull bones. b. knee.
c. wrist. d. shoulder.
- The thermometer which scale ranges from 35°C to 42°C is
a. medical thermometer. b. laboratory thermometer.
c. alcoholic thermometer. d. celsius thermometer.

2. [A] Complete the following :

- Human system is the system that controls all the vital operations of the body.
- conducts heat more than aluminium.
- Hydrogen peroxide decomposed fastley into oxygen and water in the presence of
- The weight of any object is measured by using the

[B] Write the scientific term :

- A chemical substance that remains without any change and speed up the rate of chemical reaction. (.....)
- A type of plants form protein by the help of specific type of bacteria lives in the roots. (.....)

3. [A] Correct the underlined words :

1. The backbone protects the lungs. (.....)
2. Burning is the slow union between oxygen and an element in the presence of moisture. (.....)
3. Weight doesn't change by changing the place on the Earth. (.....)
4. The automatic response of the body to external stimuli is known as the voluntary respond. (.....)

[B] What is the importance of ... ?

1. Cartilages between the vertebrae of the backbone.
.....
2. Oxy-acetylene flame.
.....

4. [A] Put (✓) or (x) :

1. Appendicular skeleton consists of upper and lower limbs bones. ()
2. Newton is measuring unit of weight of an object whose mass is 0.1 kg. ()
3. Mercury is bad heat conductor. ()
4. By decreasing the distance from the center of the Earth, decreasing weight of the object occurs. ()

[B] Compare between crinail nerves and spinal nerves :

(According to the definition and number of both of them).

.....

.....

3	Cairo Governorate	St. Joseph School
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Answer the following questions :

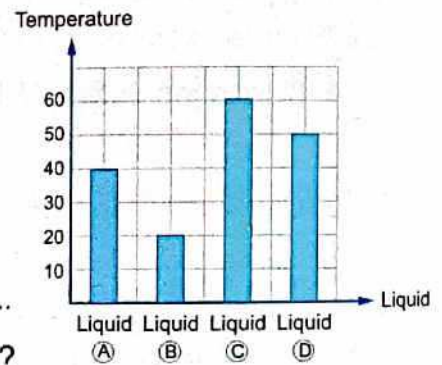
1. [A] Choose the correct answer :

1. The responsible organ for reflexes is
 a. spinal cord. b. brain. c. medulla oblongata.
2. The scientist who discovered nitrogen gas was
 a. Anders Celsius. b. Joseph Priestley. c. Daniel Rutherford.

3. An object whose weight is 20 Newton on Earth, its mass = kg.
 - a. 200
 - b. 20
 - c. 2
4. Oxygen is than air, so it replaces air.
 - a. equal
 - b. heavier
 - c. smaller
5. The ribcage consists of pairs of ribs.
 - a. 12
 - b. 24
 - c. 10

[B] Look at the opposite figure, then answer :

Ali uses his thermometer to measure the temperature of some different liquids. He draws the opposite graph for his results.



1. What is the liquid that has the highest temperature ?
.....
2. What is the type of thermometer that Ali used ?
.....

[C] Give an example for the following :

Heat insulators.

.....
.....

2. [A] Complete the following :

1. Clear limewater turns into milky when gas passes through it.
2. 1 kilogram = grams.
3. Joints are types.

[B] What happens when ... ?

1. Increasing the percentage of carbon dioxide gas in air.
.....
.....
2. Wet some iron nails with water and leave them for several days in a humid atmosphere.
.....
.....

[C] Choose from column (B) what suits it in column (A) :

Atmosphere is composed of :

(A)	(B)
1. Nitrogen gas	a. 1%
2. Oxygen gas	b. 78%
3. Carbon dioxide and other gases	c. 21%

1. 2. 3.

3. [A] Write the scientific term :

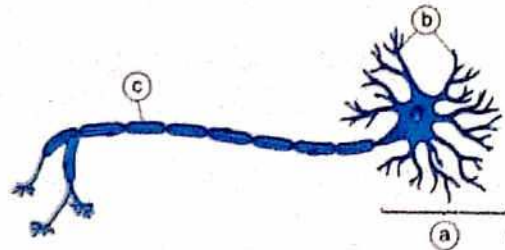
- A mixture of different gases that surrounds the Earth's surface and attracted to it by gravity. (.....)
- It is the amount of matter in an object. (.....)
- The system consists of skeletal system and muscular system. (.....)
- It is a chemical compound whose molecule consists of one carbon atom linked with two oxygen atoms. (.....)
- A layer in the atmosphere that protects the Earth from harmful radiations that come from Sun. (.....)

[B] Look at the figure then answer :

1. This is the cell.

2. Write the labels :

- (a)
 (b)
 (c)



[C] What is the importance of each of the following ... ?

1. Spring scale.

.....

2. Oxy-acetylene flame.

.....

4. [A] Put (✓) or (x) :

- The measuring unit of weight is kilogram. ()
- Mercury is used in making thermometers. ()
- Oxygen gas occupies about $\frac{1}{4}$ of the air volume. ()
- Skull is a bony box that protects the brain. ()
- When adding lemon juice to sodium bicarbonate carbon dioxide gas is produced. ()

[B] Give reasons for :

1. Copper is considered as a heat conductor.

.....

2. On putting a lighted match in a cylinder filled with nitrogen, the match is put out.

.....

[C] Compare between :

Point of comparison	Central nervous system	Peripheral nervous system
Structure :

4

Cairo Governorate

El-Helmia Official Language School

Answer the following questions :

1. [A] Complete the following :

- thermometer is used to measure the temperature of liquids.
- The plants use gas in photosynthesis process.
- gas represents 21% of air volume.
- The measuring unit of weight is

[B] What is the function of ... ?

1. Spring scale.

.....

2. The ribcage :

.....

2. [A] Give reasons for :

1. Oxygen gas is collected by downward displacement of water.

.....

2. Mercury is used in making thermometer.

.....

[B] Write the scientific term :

- | | |
|---|-----------|
| 1. Materials that don't allow the heat to pass through. | (.....) |
| 2. It is an organ which is responsible for reflex action. | (.....) |
| 3. It is a bony box that protects the brain. | (.....) |
| 4. It is the degree of hotness of coldness of a body. | (.....) |

3. [A] Put (✓) or (✗) :

- | | |
|---|--------|
| 1. Oxygen gas is used in making bread and dry ice. | () |
| 2. The scale of celsius thermometer starts from 35°C to 42°C. | () |
| 3. Iron conducts heat faster than copper. | () |
| 4. Hydrogen peroxide is used in preparation of oxygen gas. | () |

[B] What happens when ... ?

1. A medical thermometer is put in boiled water.

.....

2. A nail wetted by water is exposed several days to humid air.

.....

4. [A] Choose the correct answer :

- | | | | |
|--|---------------------|-------------------|---------------|
| 1. The backbone consists of vertebrae. | a. 100 | b. 33 | c. 12 |
| 2. Wrist joint is from joints. | a. slightly movable | b. freely movable | c. immovable |
| 3. Rapid combination between oxygen and element is | a. respiration. | b. combustion. | c. oxidation. |
| 4. The number of cranial nerves is pairs. | a. 33 | b. 43 | c. 12 |

[B] An object on Earth's surface its mass is 3 kg calculate :

1. Its mass on moon's surface.

.....
.....

2. Its weight on Earth's surface.

.....
.....

5 **Cairo Governorate** **Leaders Language Schools**

Answer the following questions :

1. [A] Choose the correct answer :

1. All the following from the components of the central nervous system except

- a. cerebrum.
- b. cerebellum.
- c. spinal cord.
- d. spinal nerves.

2. The axial skeleton consists of

- a. skull, backbone and ribcage.
- b. upper limbs and lower limbs.
- c. femur, shaft and foot.
- d. humerus, forearm and hand.

3. By burning a piece of magnesium in a jar containing carbon dioxide, the black substance that is formed on the wall of the tube is

- a. magnesium oxide.
- b. carbon.
- c. calcium carbonate.
- d. manganese dioxide.

4. The fastest metal in conducting electricity is

- a. aluminium.
- b. iron.
- c. copper.
- d. wood.

[B] Give reasons for :

1. Plastic and wood are used to make handles of cooking pots.

.....
.....

2. Oxygen is collected by downward displacement of water.

.....
.....

2. [A] Write the scientific term :

1. The amount of matter in an object.

(.....)

2. The degree of hotness or coldness of a body.

(.....)

3. It is the layer that protects the Earth from harmful radiation that comes from the Sun. (.....)
4. An organ that is responsible for reflex action. (.....)

[B] What happens when ... ?

1. No spaces are left between railway bars.
.....
2. There is no constriction in the medical thermometer.
.....

3. [A] Complete the following :

1. Manganese dioxide acts as a in the preparation of oxygen in the lab.
2. The spring scale is used to measure of the body, but the balance scale is used to measure of the body.
3. The gravitational force on a balloon when the distance between the balloon and the center of the Earth decreases.
4. gas is called azote gas that means lifeless gas.

[B] Mention one function (use) of :

1. The medical thermometer.
.....
2. Oxyacetylene flame.
.....
3. Cerebellum.
.....
4. Skull.
.....

4. [A] Put (✓) or (✗) :

1. Heat transfers from cold object to hot object. ()
2. Oxygen molecule consists of three oxygen atoms. ()
3. Newton is the measurement unit of weight. ()
4. Shoulder belongs to the pelvic girdle. ()

[B] If an object's mass on the Earth = 30 kg Calculate :

- a. It's mass on the moon =
- b. Its weight on the Earth =
- c. Its weight on the moon =

6 Giza Governorate Genius Language School

Answer the following questions :

1. [A] Complete the following :

- 1. Weight is measured in which equals the weight of an object whose mass is
- 2. The neuron consists of and
- 3. is rapid combination with oxygen, but is slow combination in the presence of moisture.
- 4. gas turbids the clear limewater due to the forming of which doesn't dissolved in water.

[B] An object whose mass on Earth is 6 kg. calculate its weight on both surfaces of the Earth and the moon.

- 1. Weight on Earth =
- 2. Weight on moon =

2. [A] Choose the correct answer :

- 1. The number of cranial nerves is pairs.
 - a. 31
 - b. 23
 - c. 12
- 2. Skull joints are
 - a. immovable.
 - b. slightly movable.
 - c. freely movable.

3. Nitrogen forms an important part in
 - a. protein.
 - b. carbohydrate.
 - c. fats.
4. is the fastest element in heat conduction.
 - a. Iron
 - b. Aluminium
 - c. Copper

[B] What happens when ... ?

1. Your finger gets pricked by the plant thorns.
.....
2. Add yeast to the dough on making bread.
.....

3. [A] Write the scientific term :

1. It consists of a gray matter in the form of letter (H) surrounded by the white matter. (.....)
2. The axis of the skeleton in the human body. (.....)
3. It is the degree of hotness or coldness of a body. (.....)
4. The automatic response of the body to different stimuli. (.....)

[B] Give reasons for :

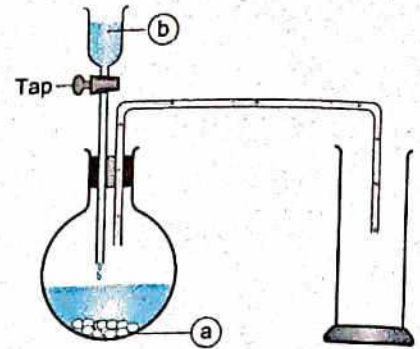
1. Mercury is used in making thermometer.
.....
2. Carbon dioxide is not collected by displacement of water.
.....
3. Damage of the medulla oblongata causes death.
.....

4. [A] Put (✓) or (✗) and correct the wrong ones :

1. The nodular bacteria fix oxygen of air in the roots of leguminous plants such as beans and clover. ()
2. The skeleton of the lower limb consists of humerus bones, 2 forearm bones and bones of the hand. ()
3. Oxygen gas is produced when hydrogen peroxide dissociates in the presence of carbon dioxide gas. ()
4. Heat transfers from hot object to cold one. ()

[B] Look at the opposite figure. the answer :

- Write what each label represents in the figure.
 (a) Is
 (b) Is
- Mention the uses of carbon dioxide gas.



7 **Giza Governorate** **El-Agoza Directorate**

Answer the following questions :

1. [A] Choose the correct answer :

- The gas which turns limewater turbid is gas.
 a. oxygen b. nitrogen c. carbon dioxide d. ozone
- The ribcage in the human body consists of of ribs.
 a. 10 pairs b. 11 pairs c. 12 pairs d. 13 pairs
- The best metal in conducting heat is
 a. aluminium. b. copper. c. iron. d. wood.
- nearly equals the mass of one paper clip.
 a. Kilogram b. Gram c. Newton d. Ton

[B] What is the function of ... ?

- Celsius thermometer.

- Carbon dioxide gas.

2. [A] Write the scientific term :

- The amount of matter in an object. (.....)
- A bony box that contains cavities for eyes, ears and nose. (.....)
- A gas that is the most important part in protein. (.....)
- A flam is used in cutting and welding metals. (.....)

[B] If the mass of a body on the Earth is 18 kg calculate :

1. It's mass on the moon =
2. It's weight on the Earth =

3. [A] Complete the following :

1. The scale of the medical thermometer starts from°C and end at°C.
2. Oxygen gas is prepared by decomposition of in presence of as acatalyst.
3. The centers of thinking and memory lie in
4. The mass is measured by scale and the weight is measured by scale.

[B] Correct the underlined words :

1. Ozone is composed two oxygen atom. (.....)
2. Cerebellum connects the brain with spinal cord. (.....)

4. [A] Put (✓) or (✗) :

1. The mass of the body changes as its location change. ()
2. All materials are good conductors of heat. ()
3. The spinal cord is responsible for reflex action in human body. ()
4. Oxygen gas occupies 78% of the atmospheric air. ()

[B] Give reasons for :

1. The handles of cooking pots are made of plastic.
.....
2. Damage of the medulla oblongata causes death.
.....

8

Giza Governorate

North Giza Directorate

Answer the following questions :

1. [A] Write the scientific term :

1. The force by which a body is attracted to the Earth. (.....)
2. The gas that represents 78% of the air volume. (.....)
3. The degree of hotness or coldness. (.....)
4. Part of the nervous system responsible for the reflex actions. (.....)

[B] What happens when ... ?

1. Diluted hydrochloric acid added to calcium carbonate salt.
.....

2. Iron nails exposed to the moist air for days.
.....

2. [A] Correct the underlined words :

1. Backbone consists of 10 vertebrae. (.....)

2. Oxygen molecule consists of three atoms of oxygen. (.....)

3. Balance scale is used to measure the weight of object. (.....)

4. Water is the liquid that is used in the thermometer. (.....)

[B] Give reasons for :

1. Clinical thermometer has constriction.
.....

2. Carbon dioxide gas is used in extinguishing fires.
.....

3. [A] Complete the following :

1. The catalyst used in the preparation of oxygen gas is

2. thermometer has graduation from 35°C to 42°C.

3. The mass of object is not affected by changing the

4. The brain is protected by

[B] Cross the odd word out :

1. Femur bones – Shaft bones – Humerus bones – Foot bones. (.....)

2. Wood – Iron – Glass – Plastic. (.....)

4. [A] Choose the correct answer :

1. Oxygen gas is produced from process.

a. respiration

b. photosynthesis

c. burning

2. The weight of object on Earth = 60 N, its weight on the moon =

a. 10 N

b. 6 N

c. 600 N

3. connects the brain to the spinal cord.

a. Cerebrum

b. Cerebellum

c. Medulla oblongata

4. We feel hotness when

a. lose heat.

b. gain heat.

c. touch cold cup.

[B] What is the importance of ... ?

1. Oxy-acetylene flame.

.....

2. Celsius thermometer.

.....

9

Giza Governorate

6th of October Directorate

Answer the following questions :

1. [A] Complete the following sentences :

- The mass measuring device is and its unit is
- The axial skeleton consists of and
- Oxygen gas produced from process.
- The most abundant gas is

[B] Correct the underlined words :

- The number of cranial nerves are 31 pairs. (.....)
- Legumes fix oxygen from air to form protein. (.....)

2. [A] Put (✓) or (x) :

- Aluminium conduct heat faster than copper. ()
- There is constriction in celsius thermometer. ()
- Joint are location of bones meeting. ()
- The spinal cord responsible for reflex action. ()

[B] Give reasons for :

1. Handle of cooking pots are made of plastic.

.....

2. Mercury is used in making thermometer.

.....

3. [A] Write the scientific term for each of the following :

- Device used to measure the weight. (.....)
- The axis of skeleton of the body. (.....)
- Gas used to put off fire. (.....)
- Materials which don't allow heat to pass through. (.....)

[B] Cross out the odd word :

1. Iron – Wood – Copper – Aluminium. (.....)
2. Kilogram – Ton – Newton – Gram. (.....)

4. [A] Choose the correct answer :

1. The percentage of oxygen gas in atmosphere is
 a. 12 % b. 78 % c. 21 % d. 30 %
2. Carbon dioxide gas turns limewater into
 a. milky. b. black. c. yellow. d. blue.
3. The central nervous system consists of
 a. brain only. b. spinal cord only.
 c. joint only. d. brain and spinal cord.
4. The human ribcage protect
 a. heart only. b. lungs only.
 c. brain only. d. heart and lungs.

[B] A body of mass 60 kilogram on Earth find its weight on Earth and its weight on moon.

.....

10**Alexandria Governorate****El-Agamy Directorate**

Answer the following questions :

1. [A] Complete the following :

1. Spring scale is used to measure while balance scale is used to measure
2. The skull protect and the backbone protect
3. The medical thermometer scale from to
4. The peripheral nervous system consists of and

[B] If the mass of object on the Earth's surface 12 kg finds :

1. Its weight on the Earth's surface.

2. Its weight on the moon surface.

2. [A] Write the scientific term :

1. The most abundant gas in air. (.....)
2. The degree of hotness or coldness of body. (.....)
3. The location at which bones meet each other. (.....)
4. The building unit of the nervous system. (.....)

[B] What happens when ... ?

1. The medulla oblongata is damaged.
.....
2. Sterilize medical thermometer with boiling water.
.....

3. [A] Choose the correct answer :

1. Ozone gas formed from
a. three different atoms. b. three similar atoms. c. two similar atoms.
2. The liquid which used in making thermometer is
a. mercury. b. alcohol. c. water.
3. The axon terminal form with other neuron.
a. nerve b. joint c. synapse
4. The weight of object with 200 gram mass is Newton.
a. 2 b. 20 c. 2000

[B] Write one function or use :

1. Cerebellum.
2. Clear limewater.

4. [A] Correct the underlined words :

1. The number of cranial nerves is 33 pairs. (.....)
2. The mass of object on moon is more than its mass on the Earth. (.....)
3. Mercury is bad conductors of heat. (.....)
4. The knee is freely movable joint. (.....)

[B] Give reasons for :

1. The presence of constriction above mercury bulb in medical thermometer.
.....
2. You have to keep away from tranquilizers and stimulants.
.....

11 Alexandria Governorate

Al-Montazah Directorate

Answer the following questions :

1. Complete the following :

- The human skeletal system consists of and
- The clinical thermometer is graduated from°C to°C
- The is the measurement unit of mass whereas the is the measurement unit of weight.
- The number of cranial nerves is and the number of spinal nerves is
- From the examples of substances which are bad conductor of heat and
- Oxygen is produced from process and carbon dioxide produced from process.

2. Write the scientific term of :

- A part of nervous system responsible for reflex action. (.....)
- The liquid used in making thermometers. (.....)
- A gas used in ammonia industry. (.....)
- The attraction force of the Earth to the body. (.....)
- The location of bones touch and allow moving. (.....)
- It is the degree of hotness or coldness of a body. (.....)

3. [A] Put (✓) or (✗) :

- Heat transfers from a cold object to a hot object. ()
- Cerebellum contains the center of thinking and memory. ()
- The mass of the body doesn't changes as its location change. ()
- Oxygen gas is collected by the downward displacement of water. ()

[B] Give reasons for :

- Aluminium is used in manufacturing of cooking pans.
.....
.....

- Carbon dioxide is used to extinguish fires.
.....
.....

4. [A] If an object's mass 30 kg. on the Earth and the Earth's gravity is 10 calculate :

1. Its mass on the moon surface.

.....

2. Its weight on the Earth.

.....

3. Its weight on the moon.

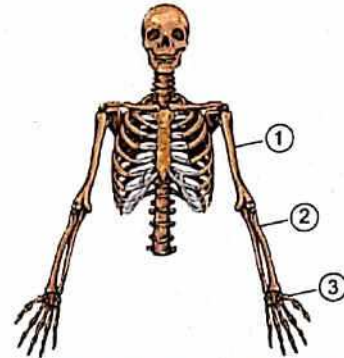
.....

[B] Look at the opposite figure then write the labels :

1.

2.

3.



12

Qalyoubia Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

1. Mass is constant and not affected by changing
2. Nitrogen molecule consists of atoms, while ozone molecule consists of atoms.
3. The knee joint is considered from joints, while the wrist joint is considered from joints.
4. The central nervous system consists of the and the
5. We use to measure the boiling point of water.

[B] Mention the name of the organ that is responsible for :

1. Controlling the voluntary movements of the body. (.....)
2. Protecting the two lungs and the heart. (.....)

2. [A] Choose the correct answer :

1. An object whose weight is 20 Newton on Earth, so its mass is equal kg.
a. 10 b. 2 c. 200 d. 20
2. We can detect for the presence of carbon dioxide gas by using a solution of
a. calcium carbonate. b. calcium hydroxide.
c. magnesium oxide. d. hydrochloric acid.

3. Mercury remains in liquid state between °C.
 a. 39 : 357 b. -39 : -357 c. -39 : 357 d. 39 : 375
4. The device of measuring weight is
 a. balance scale. b. spring scale.
 c. one arm scale. d. digital scale.

[B] Give reasons for :

1. Oxygen is collected by downward displacement of water.

.....

2. Damage of the medulla oblongata causes death.

.....

3. [A] Put (✓) or (✗) and correct the wrong one :

1. Handles of cooking pots are made of aluminium. ()
2. The used liquid in making the celsius thermometer is mercury. ()
3. Oxygen gas is prepared from hydrogen peroxide in the presence of catalyst. ()
4. Nitrogen is colorless, tasteless, odorless gas and dissolves in water easily. ()

[B] What happens when ... ?

1. All the bones of the human body without joints.

.....

2. There is no constriction in the medical thermometer.

.....

4. [A] Write the scientific term :

1. Part of the nervous system responsible for reflex actions. (.....)
2. A gas used by legumes in formation of its proteins. (.....)
3. The flame which is used for cutting and welding metals. (.....)
4. It consists of skeletal and muscular system. (.....)

[B] Mention one function for :

1. Air in the double glass window.

.....

2. Dendrites in the nerve cells.

.....

13**Menofia Governorate****Shebien El-Koum Directorate**

Answer the following questions :

1. [A] Choose the correct answer :

- The gravitational force that affects an apple whose mass is 2kg = Newton (acceleration of Earth gravity = 10 m/s^2).
a. 20 b. 2 c. 10
- The liquid metal that can be seen easily through the thermometer glass is
a. water. b. ethyl alcohol. c. mercury.
- protects the Earth from harmful radiation that comes from the Sun.
a. Carbon dioxide gas b. Ozone layer c. Oxygen gas
- Secreting saliva on seeing or smelling good food is an example of
a. reflex action. b. nervous tension. c. both of them.

[B] Compare between :

Points of comparison	Celsius thermometer	Medical thermometer
Range of scale :
Used liquid :

2. [A] Complete :

- Mass is the amount of matter that body contains, it does not change according to
- conducts heat faster than aluminium and iron.
- Small amount of nitrogen are used to fill some types of
- The basic structure unit of the nervous system is

[B] Mention the scientific term :

- Material that does not let heat flow through. (.....)
- A chemical substance remains without change in its quantity and properties such as manganese dioxide. (.....)

3. [A] Correct the underlined words :

- The joint is the location at which muscles meet each other. (.....)
- The mass of matter is decreased after combination with oxygen. (.....)
- Handles of cooking pots are made of copper. (.....)

4. The mass on the Earth's surface is different from the mass on the moon.
(.....)

[B] Give reasons for :

- The window is made by bonding two sheets of glass and maintaining a space between them filled with air.
.....
- Clear limewater becomes turbid when carbon dioxide gas pass in it.
.....

4. [A] Choose from column (B) what suits it in column (A) :

(A)	(B)
1. The backbone consist of vertebrae.	a. weight
2. Carbon dioxide is than air.	b. lower
3. The water freezes at	c. zero°C
4. The force which attracts a body to the Earth is	d. 12
	e. heavier
	f. 33

1. 2. 3. 4.

[B] What happens when ... ?

- There isn't a constriction above the bulb in medical thermometer.
.....
- Yeast is added to dough during making bread.
.....

14

Dakhliya Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

- is the force with which a body is attracted to the Earth and it is measured by
- When you hold a piece of ice in your hand, the heat transfer from to
- gas helps in burning, while gas doesn't help in combustion.
- controls the reflex actions, while maintaining the balance of the body during the movement.

[B] Complete the following table :

Points of comparison	Medical thermometer	Celsius thermometer
Scale :
Constriction :

2. [A] Put (✓) or (x) :

1. Mass of an object on the Earth equal six times its mass on the moon. ()
2. All metals are good conductors of heat. ()
3. Plants absorb carbon dioxide and nitrogen gases from air. ()
4. Knee joint is a freely movable joint. ()

[B] Give reasons for :

1. In winter we wear wool clothes.
.....

2. Clear limewater becomes turbid when carbon dioxide passes in it.
.....

3. [A] Write the scientific term :

1. The measurement unit of weight which is almost equal to a mass 100 grams. (.....)
2. The materials that don't allow the flow of heat inside. (.....)
3. Slow combination between oxygen gas and some elements in the presence of moisture. (.....)
4. Structure regulates the movement and function of the digestive system. (.....)

[B] What happens when ... ?

1. Sterilize the medical thermometer using boiled water.
.....
2. Insert a light magnesium ribbon in a cylinder filled with carbon dioxide gas.
.....

4. [A] Choose the correct answer :

1. Mass of an object on the Earth is 6 kg so its weight on the Earth Newton and on the moon Newton.

a. 6 – 1 b. 10 – 6 c. 60 – 10 d. 1 – 6

2. is bad conductor of heat.
 a. Aluminium b. Iron c. Mercury d. Air
3. Nitrogen is the most important part of
 a. fats. b. proteins.
 c. water. d. carbohydrates.
4. Number of cranial nerves is nerves.
 a. 31 b. 42 c. 62 d. 24

[B] 1. What is meant by temperature ?

.....

2. Which method that used to collect oxygen gas and CO₂ from the following figures :

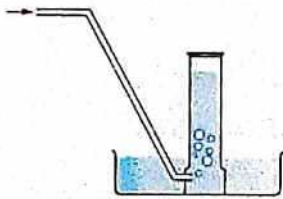


Figure (1)

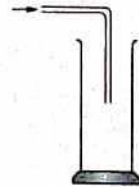


Figure (2)

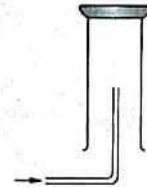


Figure (3)

a. Oxygen : Figure

b. Carbon dioxide : Figure

15

Sharkia Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

- thermometer used to measure the temperature of liquids, while thermometer used to measure the temperature of human being.
- gas used in making dry ice while gas used in filling car tires.
- Shoulder joint from joint, while the knee joint from joint.
- Mass is measured by unit while weight is measured by unit.

[B] Mention one use :

- Good conductor of heat.

- Ozone layer.

2. [A] Choose the correct answer :

- An object whose weight is 20 Newton on Earth, its mass is equal to
a. 2kg. b. 10kg. c. 2kg. d. 200kg.
- Carbon dioxide passes through clear limewater forming that insoluble in water.
a. calcium carbonate b. calcium hydroxide
c. magnesium oxide d. carbon
- is a part of human nervous system which responsible for reflex actions.
a. Brain b. Spinal cord c. Nerves d. Cerebrum
- Mercury remains liquid between
a. -39°C and 375°C . b. 37°C and 357°C .
c. 39°C and 357°C . d. -39°C and -357°C .

[B] Give reasons for :

1. Oxygen is collected by downward displacement of water.
.....

2. The capillary tube of medical thermometer contains constriction.
.....

3. [A] Write the scientific term :

- Slow combination between oxygen and elements. (.....)
- The gravitational force by which the body attracted to the Earth. (.....)
- A part of brain which responsible for body balance. (.....)
- Materials that allow heat to flow through. (.....)

[B] What happens when ... ?

1. Technicians don't leave space between railway bars.
.....

2. Carbon dioxide gas percentage increase in atmosphere.
.....

4. [A] Put (✓) or (x) :

- Copper is the fastest metal in conducting heat. ()
- Bones of upper limbs belongs to axial skeleton. ()
- Nitrogen gas called azote which means life gas. ()
- The axon of the neuron is covered with gelatinous layer called myelin sheath. ()

[B] Cross out the odd word :

1. Iron – Plastic – Copper – Aluminium. (.....)
2. Forearm bones – Shaft bone – Hand bones – Hummers bone. (.....)
3. Help in burning – Easily dissolves in water – Heavier than air
– Represent 21 % (.....)
4. Spring scale – Sensitive scale – Digital scale – Scale with pointer. (.....)

16**Gharbia Governorate****Science Inspectorate****Answer the following questions :****1. [A] Complete the following :**

1. The gravitational force for a balloon when the distance between the balloon and center of the Earth increases.
2. We use to sterilize the medical thermometer.
3. is the rapid combination between oxygen and elements producing heat and light.
4. The brain and the spinal cord represent

[B] Give reasons for :

1. We can't measure the boiling point of water by using the medical thermometer.
.....
2. Mercury gives wide range to measure the temperature.
.....

2. [A] Write the scientific term :

1. The measuring unit of weight that is almost equal to the weight of an object whose mass is 100 grams. (.....)
2. An indicator helps us to express the state of the body from the point of hotness or coldness. (.....)
3. A chemical substance that remains without any change in its quantity and properties during the chemical reaction. (.....)
4. The structure which consists of 33 bony vertebrae. (.....)

[B] What happens when ... ?

1. There are no spaces between the railway bars.
.....
2. Hydrogen peroxide is dropped over manganese dioxide.
.....

3. [A] Correct the underlined words :

1. An object's mass on the Earth's surface is 6 kg. so its weight on the moon's surface is 600 Newton. (.....)
2. The medical thermometer has a capillary tube to prevent mercury from going back quickly to the mercury bulb. (.....)
3. Ozone molecule is composed of two hydrogen atoms and one oxygen atom. (.....)
4. The medulla ablongata is responsible for keeping balance of the human body during its movement. (.....)

[B] What is the importance of ... ?

1. Celsius thermometer.
.....
2. Yeast in making bread.
.....

4. [A] Choose the correct answer :

1. The device of measuring weight is

a. sensitive scale.	b. spring scale.
c. digital scale.	d. double pans scale.
2. The best metal in conducting heat is

a. aluminium.	b. iron.	c. copper.	d. mercury.
---------------	----------	------------	-------------
3. Nitrogen is considered the main component of

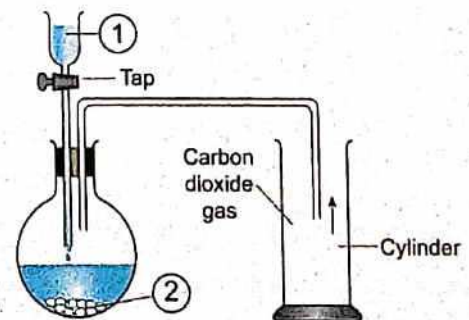
a. starch.	b. fats.	c. proteins.	d. oils.
------------	----------	--------------	----------
4. The centers of thinking and memory lie in

a. medulla oblongata.	b. spinal cord.
c. cerebellum.	d. cerebrum.

[B] Look at the following figure, then :

1. Write what represent each label on the figure :

- a. Liquid ① is
.....
- b. Substance ② is
.....



2. What is meant by ... ?

Heat conductors.
.....

17

Damietta Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

1. Weight is measured by using
2. The hydrogen peroxide decomposed into oxygen and water in the presence of
3. The structure that lies in front of the cerebellum is called
4. conducts heat faster than aluminium.

[B] Mention one function :

1. Bad conductors of heat (plastic and wood).
.....
2. Celsius thermometer.
.....

2. [A] Write the scientific term :

1. A flam used in cutting and welding metals. (.....)
2. The liquid used in making thermometers. (.....)
3. Axis of the skeleton in the human body. (.....)
4. The force by which a body is attracted to the Earth. (.....)

[B] What happens when ... ?

1. A medical thermometer is put in boiled water.
.....
2. Oxygen reacts with nitrogen during lightning.
.....

3. [A] Choose the correct answer :

1. The weight of any body =
 - a. its mass.
 - b. its mass \times 100.
 - c. its mass \times 10.
 - d. its mass \div 100.
2. When oxygen combined with an element, the mass of the product is the mass of the element.
 - a. equal
 - b. more than
 - c. less than
 - d. (a) and (b)
3. The bones of upper limb are connected to the bones.
 - a. shoulder
 - b. sternum
 - c. humerus
 - d. femur

4. The melting point of ice is
- a. 0°C b. 100°C c. 37°C d. 42°C

[B] Give reasons for :

- Ozone layer is very important for the life of all living organisms.
.....
.....
- There is a constriction in the medical thermometer.
.....
.....

4. [A] Correct the underlined words :

- Heat is the degree of hotness or coldness of a body. (.....)
- An object whose weight is 20 Newton on Earth, so its mass equals 10 kg.
(.....)
- Oxygen is produced during respiration process. (.....)
- Knee and elbow are freely movable joints. (.....)

[B] 1. How can you obtain carbon dioxide from calcium carbonate ?

.....
.....

2. How can you sterilized medical thermometer ?

.....

Answer the following questions :

1. [A] Complete the following :

- The is a measuring unit of mass, but is the measuring unit of weight.
- Oxygen is consumed during and processes.
- The central nervous system consists of and
- Exhaled air contains a large amount of gas that makes turbid.

[B] Give reasons for :

1. We must shake medical thermometer well before using it.

2. There are cartilages between vertebrae.

2. [A] Choose the correct answer :

1. The temperature is measured by using a device called
 a. barometer. b. thermometer. c. voltameter. d. ammeter.

2. Nitrogen represents of the Earth's atmosphere.
 a. 87% b. 21% c. 0.03% d. 78%

3. is responsible for the reflex action.
 a. Cerebrum b. Cerebellum
 c. Medulla oblongata d. Spinal cord

4. Three Newton equal the weight of an object whose mass is
 a. 100 gm. b. 1000 gm. c. 300 gm. d. 3000 gm.

[B] If the mass of an object on Earth's surface is 30 kg. calculate :

1. Object's mass on moon.

2. Object's weight on the Earth.

3. [A] Write the scientific term :

1. Materials that allow heat to flow through. (.....)

2. Chemical substance used to increase the rate of chemical reaction. (.....)

3. The building unit of nervous system. (.....)

4. It is equal to the mass of one liter of distilled water. (.....)

[B] Mention the use of :

1. Spring scale.

2. Carbon dioxide.

4. [A] Put (✓) or (x) :

1. Heat is the degree of hotness or coldness of the body. ()

2. Nitrogen gas is composed of two hydrogen atoms. ()

3. Cranial nerves consist of 12 pairs of nerves. ()

4. Oxygen gas is used in cutting and welding metals. ()

[B] What happens when ... ?

1. Increasing the percentage of carbon dioxide gas in atmosphere.
.....

2. Shoulder becomes slightly movable joints.
.....

19**Behira Governorate****Kafr El-Dawar Directorate****Answer the following questions :****1. [A] Complete the following sentences :**

1. Water is freezeed at°C and boiled at°C.
2. The percentage of carbon dioxide gas in atmospheric air is %
3. Skull joints are joints.
4. Mercury remains in a liquid state between two degree of temperature which are and and that gives wide range of temperature measurement.

[B] What happens when ... ?

1. Yeast is added to dough during making bread.
.....

2. The cerebellum is shocked hardly.
.....

2. [A] Write the scientific term :

1. The measuring unit of weight which is almost equal to a mass 100 gm. (.....)
2. An instrument used for measuring the temperature. (.....)
3. The basic structure unit of nervous system. (.....)
4. Materials that do not let heat flow through. (.....)

[B] Mention the main idea of making thermometer :

.....
.....
.....

3. [A] Correct the underlined word in the following sentences :

1. Wood conducts heat faster than iron and aluminium. (.....)
2. The mass of material decreases after combination with oxygen. (.....)

3. The nodular bacteria of leguminous plants such as bean fix oxygen in the atmospheric air. (.....)
4. Oxygen combines with a burning magnesium ribbon forming a black substance. (.....)

[B] Give reasons for :

1. There is a constriction in the medical thermometer.
.....
2. Oxygen is collected by displacement of water downward in the jar during preparation at the laboratory.
.....

4. [A] Choose the correct answer :

1. is a bad conductor of heat.
a. Copper b. Aluminium c. Air d. Iron
2. Nitrogen is the main component of
a. proteins. b. fats. c. carbohydrates. d. water.
3. is/are from the component of neuron.
a. Blood vessels b. Fatty layer c. Dendrites d. Axon
4. The graduation of medical thermometer is between°C
a. 42 : 35 b. 35 : 37 c. 35 : 42 d. 37 : 42

[B] An object's mass = 30 kg. on the Earth's surface. calculate :

1. Its mass on moon.
.....
2. Its weight on the Earth.
.....

20

Ismailia Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

1. The water freezes at and boils at
2. The number of vertebrae of vertebral column is, while the number of ribs of ribcage is pairs.
3. Mass is measured by scale, while weight is measured by
4. In photosynthesis process, the plant consumed gas and produced gas.

[B] Compare between :

1. Medical thermometer and celsius thermometer according to the constriction.

Point of comparison	Medical thermometer	Celsius thermometer
Constriction :

2. Heat conductors and heat insulators according to definition.

Point of comparison	Heat conductors	Heat insulators
Definition :

2. [A] Correct the underlined words :

1. Legumes such as clover benefit from oxygen to make protein. (.....)
2. An object whose mass is 25 kg its weight equal 200 N. (.....)
3. Medulla oblongata controls the reflex action. (.....)
4. Iron is faster than aluminium in conduction of heat. (.....)

[B] What is the the importance of ... ?

1. Ozone layer.
.....
2. Heavy blankets and woolen clothes.
.....

3. [A] Write the scientific term :

1. Joints which allow movement in one direction. (.....)
2. The slow combination between oxygen and elements in presence of moist air. (.....)
3. The force by which a body is attracted to the Earth. (.....)
4. The degree of hotness or coldness. (.....)

[B] Look at the following figures then answer :

1. Figure (a) :
 - a. This apparatus used to prepare gas.
 - b. This gas is collected by

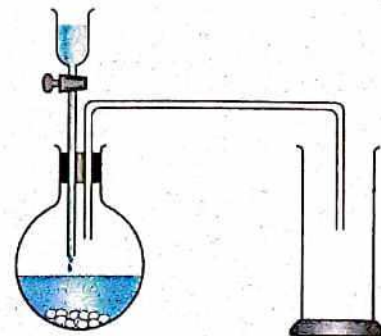


Figure (a)

2. Figure (b) :

What will happen when object (A) touches object (B) ?

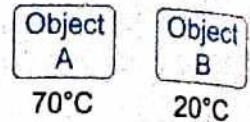


Figure (b)

4. [A] Choose the correct answer :

- The cerebellum is responsible for
 - thinking.
 - the body balance.
 - regulating the heartbeats.
 - memory.
- When carbon dioxide gas is passed in limewater, it becomes turbid due to formation of
 - calcium carbonate.
 - calcium bicarbonate.
 - hydrochloric acid.
 - sodium bicarbonate.
- The medical thermometer is used in measuring the temperature of
 - liquids.
 - weather.
 - the human body.
 - all of them.
- The object weight when the mass of the planet increases.
 - decreases
 - increases
 - still constant
 - decreases then increases

[B] Give reasons for :

- Mercury gives a wide range of temperature measurement.

- Manganese dioxide acts as a catalyst during preparation of oxygen.

21

Bani Suf Governorate

Beba Directorate

Answer the following questions :

1. [A] Choose the correct answer :

- The device of measuring weight is
 - sensitive scale.
 - spring scale.
 - one arm scale.
 - digital scale.
- The gas turbid limewater is gas
 - oxygen
 - ozone
 - nitrogen
 - carbon dioxide
- Nitrogen gas represents of the air volume.
 - 78%
 - 87%
 - 21%
 - 50%
- One of the slightly joints are
 - elbow.
 - shoulder.
 - thigh.
 - wrist.

[B] Mention one function for :

1. Skull.

.....

2. Medical thermometer.

.....

2. [A] Put (✓) or (x) :

- 1. Oxidation is a rapid combination object with oxygen. ()
- 2. Spinal cord responsible for reflex action. ()
- 3. One newton equal 100 gram. ()
- 4. Copper is fastest element to conduct heat. ()

[B] Give reasons for :

1. Cooking pots made up of aluminium.

.....

.....

2. Carbon dioxide is used in extinguishing fires.

.....

.....

3. [A] Choose from column (B) what suits it in column (A) :

(A)	(B)
1. The back bone	a. falling rains and snow.
2. Ribcage	b. opposite for respiration.
3. Photosynthesis	c. 33 vertebra.
4. Air pollutants	d. protects heart and lungs.

1. 2. 3. 4.

[B] An object its mass 12 kg on the Earth's surface find :

1. Weight on the Earth.

.....

2. Weight on the moon.

.....

4. [A] What happens when ... ?

1. Damage of medulla oblongata.

.....

2. There is no spaces between railway bars.

.....

[B] Correct the underlined words :

1. Kilogram equals the mass of one paper clip. (.....)
2. The melting point of ice is 100°C. (.....)
3. Cerebrum control body balance. (.....)
4. Light is a form of energy transfer from higher temperature to lower temperature. (.....)

22**Minia Governorate****St.Mark Schools****Answer the following questions :****1. Choose the correct answer :**

1. The weight of any body by increasing its mass.
a. decreases b. increases c. still constant d. no correct answer
2. Which of the following is the fastest in conducting heat ?
a. Copper. b. Iron. c. Aluminium. d. Glass.
3. We should sterilize the medical thermometer by using
a. ethyl alcohol. b. boiling water. c. mercury. d. water.
4. Hydrogen peroxide is used in preparing gas.
a. hydrogen b. oxygen c. nitrogen d. carbon dioxide
5. The gas which makes limewater turbid is
a. oxygen. b. nitrogen. c. carbon dioxide. d. ozone.
6. controls the reflex actions.
a. Spinal cord b. Cerebellum c. Cerebrum d. Brain

2. [A] Complete the following statements :

1. Mass is measured by scale, whereas weight is measured by scale.
2. and are some usages of good heat conductors.
3. Carbon dioxide gas is prepared in laboratory by dropping over
4. The central nervous system consists of and

[B] Classify each of the following joints according to their types :

1. Knee joint. (.....)
2. Shoulder joint. (.....)

[C] What is function of ... ?

1. Skull.

.....

2. Cerebellum.

.....

3. [A] Write the scientific term :

1. The force with which a body is attracted to the Earth. (.....)

2. The gas that forms 21% of the volume of air. (.....)

3. A gas that is called azote which means lifeless. (.....)

4. Linked to the brain through the spinal cord and is responsible for involuntary actions. (.....)

[B] If an object's its mass 30 kg on the Earth, calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

[C] Give reasons for :

1. Carbon dioxide is used in extinguishing fires.

.....

2. The backbone is very important.

.....

4. [A] Compare between the medical thermometer and celsius thermometer :

Points of comparison	Medical thermometer	Celsius thermometer
1. Scale :
2. Usage :
3. Used liquid :

[B] Put (✓) or (x) :

1. Kilogram nearly equals the mass of one paper clip. ()
2. All metals are good conductors of heat. ()
3. Oxygen combines with burning magnesium ribbon forming a white substance. ()
4. There are 12 pairs of spinal nerves and 31 pairs of cranial nerves. ()

[C] Mention two uses of carbon dioxide gas.

1.
2.

23

Assiut Governorate

Manflout Directorate

Answer the following questions :

1. [A] Complete the following :

1. The weight of the body is measured by
2. The gas used to filling car tires.
3. All metals are conductors of heat.
4. The number of vertebra of backbone is

[B] If an object's mass is 30 kg. on the Earth, calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

2. [A] Put (✓) or (x) :

1. Aluminium is a bad conductor of heat. ()
2. Myelin sheath surround the nerve cell axon. ()
3. Oxygen gas occupies 78% of the atmospheric air componets. ()
4. Mass has no direction. ()

[B] What happens when ... ?

1. Hip (thigh) joint has a limited.

.....

.....

2. Increase the represent of carbon dioxide in atmosphere layer.

.....

3. [A] Write the scientific term :

- 1. An organ responsible for the reflex actions of body. (.....)
- 2. A flame used in cutting and welding metals. (.....)
- 3. Materials that do not let heat flow through. (.....)
- 4. The amount of matter in an object. (.....)

[B] Give reasons for :

1. Ozone layer is very important for our life.

.....

2. Brain is located inside the skull.

.....

4. [A] Choose the correct answer :

- 1. The used liquid in the celsius thermometer is
 a. alcohol. b. water. c. mercury. d. oil.
- 2. is bad conductor of heat.
 a. Copper b. Glass c. Iron d. Aluminium
- 3. responsible for involuntary processes of the body.
 a. Spinal nerve b. Cerebellum c. Medulla oblongata d. Brain
- 4. gas used in extinguished fires.
 a. Oxygen b. Methan c. Nitrogen d. Carbon dioxide

[B] Look at the figure, then answer :

1. This figure represents the thermometer.

2. Label the figure :

- (a) (b) (c) (d)



24

Sohag Governorate

Science Inspectorate

Answer the following questions :

1. [A] Choose the correct answer :

- is a good conductor of heat.
 - Glass
 - Copper
 - Wood
- protects the Earth from harmful radiation that comes from the Sun.
 - Carbon dioxide gas
 - Ozone layer
 - Oxygen gas
- The cerebellum is responsible for
 - voluntary actions.
 - memory.
 - keeping the body balanced.
- The amount of matter in an object is
 - mass.
 - volume.
 - weight.

[B] If an object's mass = 30 kg. calculate :

- It's weight on Earth =
- It's weight on moon =

2. [A] Put (✓) or (x) :

- Nitrogen gas occupies 78% of the atmosphere air components. ()
- Mass is measured by Newton. ()
- The number of cranial nerves is 31 pairs. ()
- Heat transfers from hot object to cold one. ()

[B] Compare between celsius thermometer and medical thermometer :

Points of comparison	Celsius thermometer	Medical thermometer
1. Range of scale :
2. Its uses :

3. [A] Write the scientific term :

- It is composed of the skull, the backbone and ribcage. (.....)
- The force by which object is attracted to the Earth. (.....)
- It is the basic structure unit of the nervous system. (.....)
- A gas turbids the clear limewater. (.....)

[B] Give reasons for :

- Nitrogen gas is called azote means lifeless gas.
.....

2. Handles of cooking pots are made of wood or plastic.

4. [A] Complete the following :

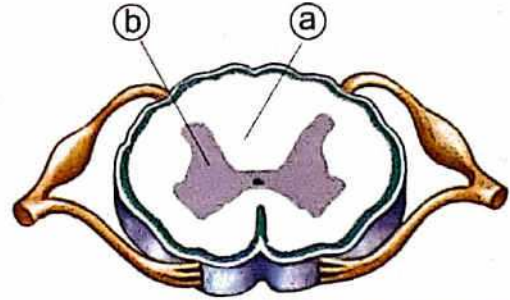
1. The device of measuring mass is
2. The knee joints is form of joint.
3. Oxygen gas is collected by displacing of downward.
4. In process plants absorb carbon dioxide gas and produce oxygen.

[B] What is the name of the figure ... ?

.....

Label the figure :

- (a)
- (b)



25 Qena Governorate Qena Directorate

Answer the following questions :

1. [A] Complete the following :

1. Mass is measured by scale, while weight is measured by scale.
2. The scale of medical thermometer starts from°C and ends at°C.
3. Oxygen is prepared by decomposition of in presence of
4. The main control center in your body is and it is found inside a bony case called

[B] An object, its weight on moon's surface is 10 Newton. calculate :

1. Its weight on the Earth's surface.

2. Its mass on the Earth's surface.

2. [A] Choose the correct answer :

1. As a result of heat flow through metals, they
 a. expand. b. contract. c. constant. d. (a) and (b)
2. Carbon dioxide gas evolves by adding dilute hydrochloric acid to
 a. calcium oxide. b. calcium carbonate.
 c. calcium hydroxide. d. calcium chloride.

3. Reflex action takes place through
 a. medulla oblongata. b. cerebrum. c. cerebellum. d. spinal cord.
4. Femur bone is attracted to
 a. shoulder. b. pelvic. c. ribcage. d. humerus.

[B] What happens when ... ?

1. A body moves away from the center of the Earth.

2. Medical thermometer is put in boiled water.

3. [A] Write the scientific term :

1. A gas composed of three oxygen atoms. (.....)
2. The amount of matter in an object. (.....)
3. The location at which bones meet each other. (.....)
4. A gas that composes the protein substance that builds up out bodies. (.....)

[B] Give reasons for each :

1. Copper is good conductor of heat.

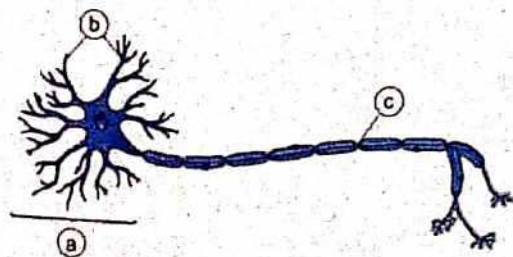
2. Cerebellum is very important for human body.

4. [A] Put (✓) or (x) in front of the following :

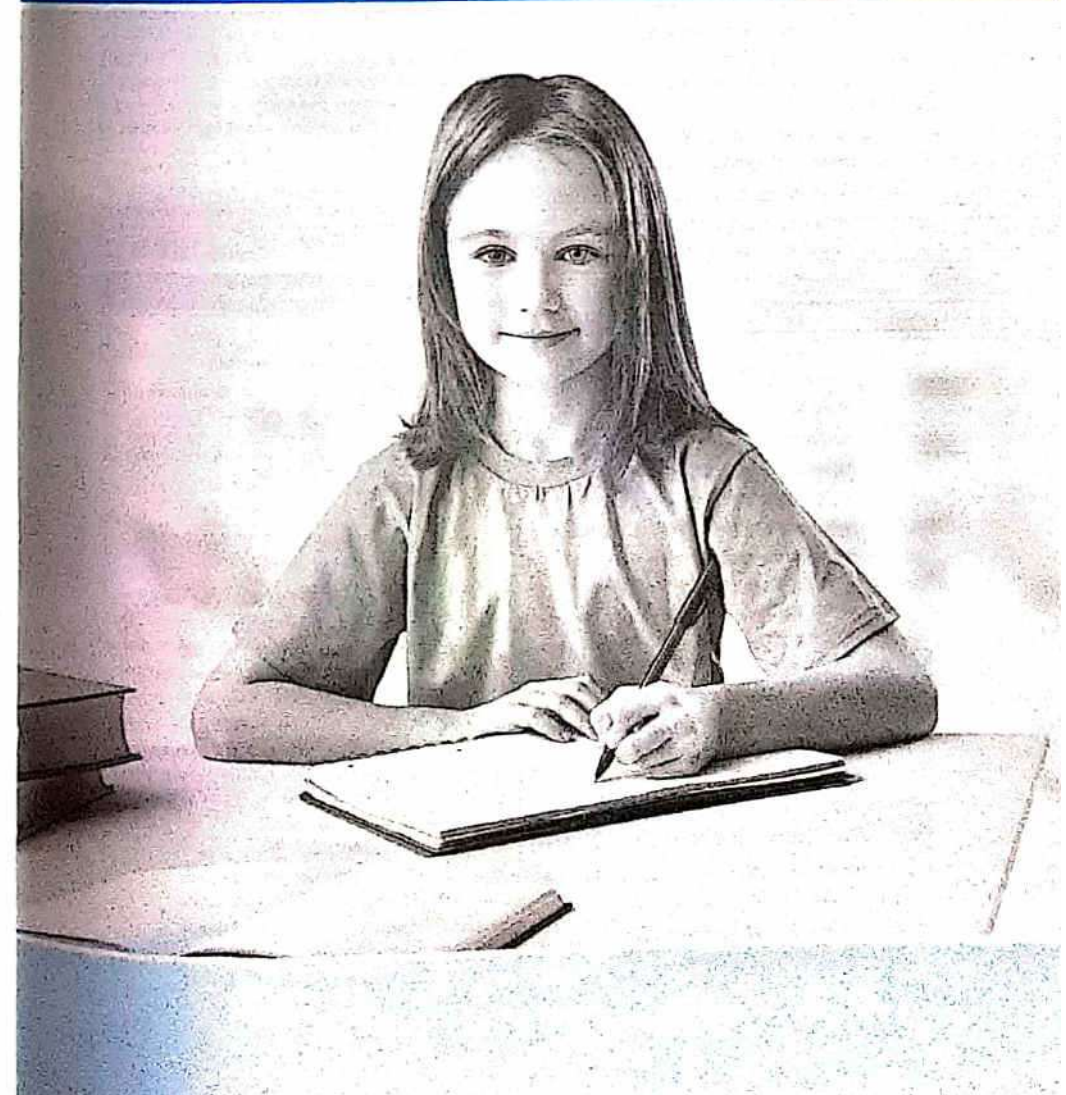
1. Knee is freely movable joint. ()
2. Heat transfers from cold object to hot object. ()
3. Backbone consists of 33 vertebrae. ()
4. Nitrogen is used in making soft drinks. ()

[B] Look at the figure, then answer :

1. This figure represents
2. Label the figure :
- (a)
- (b)
- (c)



2. [A] 1. Lower limbs in human ...
 2. ... called axon terminals.
 3. Medulla oblongata regulates ...
 4. ... the lungs and ...
- [B] 1. To maintain the nervous system healthy as they affect the sleeping periods, the heartbeats and lead to nervous tension.
 2. Because it allows the movement in all directions.
3. [A] 1. The brain. 2. The spinal cord.
 3. The joint. 4. Medulla oblongata.
- [B]
- | Point of comparison | Cranial nerves | Spinal nerves |
|---------------------|---|---|
| Definition : | They are nerves that emerge from the brain. | They are nerves that emerge from the spinal cord. |
4. [A] 1. b. 33 2. d. Medulla oblongata
 3. d. Knee. 4. a. spinal cord.
- [B] 1. Humerus
 Forearm
 2. It protects the brain.



Cairo Governorate

1 Manor House International school

1. (A) 1. Carbon dioxide gas.
2. Celsius thermometer.
3. The joint. 4. Mass.
(B) 1. It will cause global warming and suffocation of living organisms.
2. The withdrawal of your hand will occur quickly.
2. (A) 1. 37 2. oxygen
3. the skeletal system – the muscular system.
4. gram – kilogram.
(B) 1. - It protects the lungs and the heart.
- It helps in the inhalation and exhalation processes.
2. It is used to sterilize the medical thermometer.

3. (A) 1. a. 10 kg.
2. a. nerve cell axon.
3. c. Plastic
4. a. oxygen
(B) 1. Its weight on Earth :
Rule : the object mass (kg.) × 10
weight on Earth = $18 \times 10 = 180$ Newton.
2. Its weight on moon :
Rule : the object weight on Earth $\times \frac{1}{6}$
weight on moon = $180 \times \frac{1}{6} = 30$ Newton.
4. (A) 1. (x) 2. (✓) 3. (x) 4. (✓)
(B) - medical thermometer.
- it prevents mercury from returning back to the bulb quickly in order to read the measurement easily.

2 Helipollis Modern Language School

1. 1. c. carbon dioxide 2. a. spinal nerves.
3. d. carbon. 4. c. 60 N.
5. a. joints between skull bones.
6. a. medical thermometer.

2. (A) 1. nervous 2. Copper
3. manganese dioxide.
4. spring scale.
(B) 1. catalyst. 2. legumes.
3. (A) 1. ribcage 2. Oxidation
3. Mass 4. reflex action.
(B) 1. They prevent friction between vertebrae during movement.
2. It is used for cutting and welding metals.

4. (A) 1. (✓) 2. (✓) 3. (x) 4. (x)
(B)

Points of comparison	Cranial nerves	Spinal nerves
1. Definition :	They are nerves that emerge from the brain.	They are nerves that emerge from the spinal cord.
2. Number :	12 pairs.	31 pairs.

3 St. Joseph School

1. (A) 1. a. spinal cord.
2. c. Daniel Rutherford.
3. c. 2 4. b. heavier
5. a. 12
(B) 1. liquid (C).
2. celsius thermometer.
(C) Glass.
2. (A) 1. carbon dioxide 2. 1000
3. three
(B) 1. It will cause global warming and suffocation of living organisms.
2. Iron will combine with oxygen in the presence of moisture (water), so iron nails will rust.
(C) 1. b. 78% 2. c. 21%
3. a. 1%
3. (A) 1. The atmosphere.
2. Mass.
3. Locomotory system.
4. Carbon dioxide gas.
5. Ozone layer.
(B) 1. nerve
2. (a) Cell body. (b) Dendrites.
(c) Myelin sheath.

- (C) 1. It is used to measure the weight of any body.
2. It is used for cutting and welding metals.
4. (A) 1. (x) 2. (✓) 3. (x)
4. (✓) 5. (✓)
(B) 1. Because it allow heat to flow through.
2. Because it doesn't help in burning.
(C)

Point of comparison	Central nervous system	Peripheral nervous system
Structure :	It consists of the brain and the spinal cord.	It consists of cranial nerves and spinal nerves.

4 El-Helmia Official Language School

1. (A) 1. Celsius 2. Carbon dioxide
3. Oxygen 4. Newton.
(B) 1. It is used to measure the weight of any body.
2. - It protects the lungs and the heart.
- It helps in the inhalation and exhalation processes (breathing).
2. (A) 1. Because oxygen scarcely dissolves in water.
2. Because mercury :
a. is a liquid metal that can be seen easily through the thermometer glass.
b. is a good conductor of heat.
c. is a regular expanding material.
d. doesn't stick to the walls of the capillary tube.
e. gives a wide range to temperature measurement.
(B) 1. Heat insulators. 2. Spinal cord.
3. Skull. 4. Temperature.
3. (A) 1. (x) 2. (x) 3. (x) 4. (✓)
(B) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
2. Iron will combine with oxygen in the presence of moisture (water), so iron nails will rust.

4. (A) 1. b. 33 2. b. Freely movable
3. c. oxidation. 4. c. 12
(B) 1. 3 kg
2. Its weight on Earth's surface
= Its mass (kg.) × 10
= $3 \times 10 = 30$ Newton.

5 Leaders Language Schools

1. (A) 1. d. spinal nerves.
2. a. skull, backbone and ribcage.
3. a. magnesium oxide.
4. c. copper.
(B) 1. Because they don't let heat flow through as they are bad conductors of heat.
2. Because oxygen scarcely dissolves in water.
2. (A) 1. Mass. 2. Temperature.
3. Ozone layer. 4. Spinal cord.
(B) 1. Train accidents will occur.
2. The mercury will return back quickly to the mercury bulb before determining the temperature reading.

3. (A) 1. catalyst
2. weight – large mass
3. increases
4. Nitrogen
(B) 1. It is used to measure the temperature of human body.
2. It is used for cutting and welding metals.
3. It maintains the balance of the body during the movement.
4. It protects the brain.
4. (A) 1. (x) 2. (x) 3. (✓) 4. (x)
(B) a. 30 kg.
b. Its weight on the Earth
= Its mass (kg.) × 10
= $30 \times 10 = 300$ Newton.
c. Its weight on the moon
= Its weight on the Earth $\times \frac{1}{6}$
= $300 \times \frac{1}{6} = 50$ Newton.

Giza Governorate

6 Genius Language School

1. (A) 1. Newton – 1kg.
2. cell body – axon.
3. Burning – oxidation
4. Carbon dioxide – calcium carbonate
- (B) 1. Weight on Earth = Its mass \times 10
= $6 \times 10 = 60$ Newton.
2. Weight on moon
= Its weight on the Earth $\times \frac{1}{6}$
= $60 \times \frac{1}{6} = 10$ Newton.
2. (A) 1. c. 12 2. a. immovable.
3. a. protein. 4. Copper
- (B) 1. The withdrawal of your hand will occur quickly.
2. Carbon dioxide is produced during fermentation, so the bread becomes porous and tasty.
3. (A) 1. Spinal cord.
2. The backbone.
3. Temperature.
4. Reflex action.
- (B) 1. Because mercury :
a. is a liquid metal that can be seen easily through the thermometer glass.
b. is a good conductor of heat.
c. is a regular expanding material.
d. doesn't stick to the walls of the capillary tube.
e. gives a wide range to temperature measurement.
2. Because it easily dissolves in water.
3. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).
4. (A) 1. (x) fix nitrogen
2. (x) of the upper limb
3. (x) in the presence of manganese dioxide gas.
4. (✓)

- (B) 1. a. Is calcium carbonate.
b. Is dilute hydrochloric acid.
2. a. It is used in making dry ice which is used in refrigeration.
b. It is used in extinguishing fires.
c. It is used in making soft drinks.
d. It is used in making bubbled and tasty bread when adding yeast to dough.
e. It is necessary for photosynthesis process of green plants to produce food and oxygen gas.

7 El-Agoza Directorate

1. (A) 1. c. carbon dioxide 2. c. 12 pairs
3. b. copper. 4. b. Gram
- (B) 1. It is used to measure the temperature of liquids.
2. a. It is used in making dry ice which is used in refrigeration.
b. It is used in extinguishing fires.
c. It is used in making soft drinks.
d. It is used in making bubbled and tasty bread when adding yeast to dough.
e. It is necessary for photosynthesis process of green plants to produce food and oxygen gas.
2. (A) 1. Mass.
2. Skull.
3. Nitrogen gas.
4. Oxy-acetylene flame.
- (B) 1. Its mass on the moon
= Its mass on the Earth
= 18 kg.
2. Its weight on the Earth
= Its mass on the Earth \times 10
= $18 \times 10 = 180$ Newton.
3. (A) 1. 35 – 42
2. hydrogen peroxide – manganese dioxide.
3. cerebrum.
4. balance – spring
- (B) 1. three
2. Medulla oblongata

4. (A) 1. (x) 2. (x) 3. (✓) 4. (x)
- (B) 1. Because they don't let heat flow through as they are bad conductors of heat.
2. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).

8 North Giza Directorate

1. (A) 1. Weight. 2. Nitrogen.
3. Temperature. 4. Spinal cord.
- (B) 1. They will react together and carbon dioxide gas will evolve.
2. Iron will combine with oxygen in the presence of moisture (water) so iron nails will rust.
2. (A) 1. 33 2. Ozone
3. Spring scale 4. Mercury
- (B) 1. To prevent mercury from returning back to the mercury bulb quickly in order to read the measurement easily.
2. Because it doesn't burn and doesn't help in burning.
3. (A) 1. manganese dioxide 2. Medical
3. place of matter 4. the skull
- (B) 1. Humerus bones. 2. Iron.
4. (A) 1. b. photosynthesis
2. a. 10 N
3. c. Medulla oblongata
4. b. gain heat.
- (B) 1. It is used for cutting and welding metals.
2. It is used to measure the temperature of liquids.

9 6th of October Directorate

1. (A) 1. balance scale – kilogram.
2. skull – ribcage.
3. photosynthesis
4. nitrogen.
- (B) 1. 12 Pairs. 2. nitrogen

2. (A) 1. (x) 2. (x) 3. (✓) 4. (✓)
- (B) 1. Because they don't let heat flow through as they are bad conductors of heat.
2. Because mercury :
a. is a liquid metal that can be seen easily through the thermometer glass.
b. is a good conductor of heat.
c. is a regular expanding material.
d. doesn't stick to the walls of the capillary tube.
e. gives a wide range to temperature measurement.
3. (A) 1. Spring scale.
2. The backbone.
3. Carbon dioxide gas.
4. Heat insulators.
- (B) 1. Wood. 2. Newton.

4. (A) 1. c. 21% 2. a. milky.
3. d. brain and spinal cord.
4. d. heart and lungs.
- (B) – Weight of the body on Earth
= Its mass (kg) \times 10
= $60 \times 10 = 600$ Newton.
– Weight of the body on moon
= Its weight on the moon $\times \frac{1}{6}$
= $600 \times \frac{1}{6} = 100$ Newton.

Alexandria Governorate

10 El-Agamy Directorate

1. (A) 1. weight – mass.
2. brain – spinal cord.
3. 35°C – 42°C
4. cranial nerves – spinal nerves.
- (B) 1. Its weight on the Earth's surface
= Its mass (kg.) \times 10
= $12 \times 10 = 120$ Newton.
2. Its weight on moon surface = Its weight on Earth's surface $\times \frac{1}{6}$
= $120 \times \frac{1}{6} = 20$ Newton.

2. (A) 1. Nitrogen. 2. Temperature.
3. Joints. 4. Neuron.
(B) 1. All the involuntary processes of the body will be disturbed causing death.
2. The medical thermometer will be damaged, because the boiling point of water is 100°C

3. (A) 1. b. three similar atoms.
2. a. mercury. 3. c. synapse
4. a. 2
(B) 1. It maintains the balance of the body during the movement.
2. It is used to detect the presence of carbon dioxide gas.

4. (A) 1. 12 2. equal to
3. good 4. slightly
(B) 1. To prevent mercury from returning back to the mercury bulb quickly in order to read the measurement easily.
2. To maintain the nervous system healthy as they affect the sleeping periods, the heartbeats and lead to nervous tension.

11 Al-Montazah Directorate

1. 1. axial skeleton – appendicular skeleton,
2. 35 – 42
3. kilogram – Newton
4. 12 pairs – 31 pairs
5. plastic – wood.
6. photosynthesis – respiration
2. 1. Spinal cord. 2. Mercury.
3. Nitrogen gas. 4. Weight.
5. Joints. 6. Temperature.
3. (A) 1. (x) 2. (x) 3. (✓) 4. (✓)
(B) 1. Because aluminium is a good conductor of heat.
2. Because it doesn't burn and doesn't help in burning.
4. (A) 1. Its mass on the moon surface = 30 kg.

2. Its weight on the Earth
= Its mass (kg.) × 10
= 30 × 10 = 300 Newton
3. Its weight on moon
= Its weight on the Earth × $\frac{1}{6}$
= 300 × $\frac{1}{6}$ = 50 Newton
(B) 1. Humerus bone. 2. Forearm bones.
3. Hand bones.

12 Qalyoubia Governorate

1. (A) 1. the place of matter.
2. two nitrogen – three oxygen
3. slightly movable – freely movable
4. the brain – the spinal cord.
5. celsius thermometer
(B) 1. Cerebrum. 2. Ribcage.
2. (A) 1. b. 2
2. c. magnesium oxide.
3. c. – 39 : 357
4. b. spring scale.
(B) 1. Because oxygen scarcely dissolves in water.
2. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).

3. (A) 1. (x) made of wood or plastic.
2. (✓) 3. (✓)
4. (x) Carbon dioxide is
(B) 1. The human body can't move.
2. The mercury will return back quickly to the mercury bulb before determining the temperature reading.
4. (A) 1. Spinal cord. 2. Nitrogen.
3. Oxy-acetylene flame.
4. The locomotory system.
(B) 1. It is used as a heat insulating material in making the insulating glass windows.
2. They are connected to the neighbouring neurons to form synapse.

13 Menofia Governorate

1. (A) 1. a. 20 2. c. mercury.
3. b. Ozono layer 4. a. reflex action.
(B)

Points of comparison	Celsius thermometer	Medical thermometer
Range of scale :	From 0°C to 100°C	From 35°C to 42°C
Used liquid :	Mercury	Mercury

2. (A) 1. the place of matter. 2. Copper
3. lamps. 4. neuron.
(B) 1. Heat insulators. 2. Catalyst.
3. (A) 1. bones 2. increased
3. wood. 4. equal to
(B) 1. To prevent the leakage of heat.
2. Due to the formation of calcium carbonate (white ppt.) which is insoluble in water and causes the turbidity of limewater.
4. (A) 1. f 2. e
3. c 4. a
(B) 1. The mercury will return back quickly to the mercury bulb before determining the temperature reading.
2. Carbon dioxide is produced during fermentation, so the bread becomes porous and tasty.

14 Dakahlia Governorate

1. (A) 1. Weight – Newton
2. the hand – Ice.
3. Oxygen – carbon dioxide
4. Spinal cord – cerebellum
(B)

Points of comparison	Medical thermometer	Celsius thermometer
Scale :	From 35°C to 42°C	From 0°C to 100°C
Constriction :	Present.	Absent.

2. (A) 1. (x) 2. (✓) 3. (x) 4. (x)
(B) 1. To keep our bodies warm as they prevent the leakage of heat.
2. Due to the formation of calcium carbonate (white ppt.) which is insoluble in water and causes the turbidity of limewater.

3. (A) 1. Newton
2. Heat insulators.
3. Oxidation.
4. Medulla oblongata.
(B) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
2. Magnesium ribbon keeps burning for a short time producing magnesium oxide which is a white substance and carbon (coal) which is a black substance.
4. (A) 1. c. 60 – 10 2. d. Air
3. b. proteins. 4. d. 24
(B) 1. It is the degree of hotness or coldness of a body.
2. a. Figure (1). b. Figure (2).

15 Sharkia Governorate

1. (A) 1. Celsius – medical
2. Carbon dioxide
3. freely – slightly
4. kilogram – Newton
(B) 1. They are used in making :
a. cooking pots.
b. Kettles that are used in houses and factories.
2. Protects the Earth from harmful radiations that come from the Sun.
2. (A) 1. a. 2 kg.
2. a. calcium carbonate
3. b. Spinal cord
4. a. – 39°C and 375°C
(B) 1. Because oxygen scarcely dissolves in water.
2. To prevent mercury from returning back to the mercury bulb quickly in order to read the measurement easily.

3. (A) 1. Oxidation. 2. Weight.
3. Cerebellum. 4. Heat conductors.
(B) 1. Train accidents will occur.
2. It will cause global warming and suffocation of living organisms.
4. (A) 1. (✓) 2. (x) 3. (✓) 4. (✓)
(B) 1. Plastic.
2. Shaft bones.
3. Easily dissolves in water.
4. Spring scale.

16 Gharbia Governorate

1. (A) 1. decreases 2. ethyl alcohol
3. Burning
4. the central nervous system
(B) 1. Because the scale of the medical thermometer ranges from 35°C to 42°C, while the temperature of boiling water is 100°C, so the medical thermometer will break.
2. Because it remains in a liquid state between (-39°C) and (357°C).

2. (A) 1. Newton. 2. Temperature.
3. Catalyst 4. Backbone.
(B) 1. Train accidents will occur.
2. Hydrogen peroxide is decomposed into water and oxygen gas, while manganese dioxide doesn't change in its quantity or structure.

3. (A) 1. 10 2. constriction
3. Water 4. cerebellum
(B) 1. It is used to measure the temperature of liquids.
2. It is used to produce carbon dioxide gas by fermentation process to make bubbled bread.

4. (A) 1. b. spring scale. 2. c. copper.
3. c. proteins. 4. d. cerebrum.
(B) 1. a. dilute hydrochloric acid,
b. calcium carbonate.
2. They are the materials that let heat flow through.

17 Damietta Governorate

1. (A) 1. spring scale.
2. manganese dioxide.
3. medulla oblongata.
4. Copper
(B) 1. They are used in making the handles of:
a. cooking pots. b. Electric iron,
c. kettles.
2. It is used to measure the temperature of liquids.
2. (A) 1. Oxy-acetylene. 2. Mercury.
3. Backbone 4. weight.
(B) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
2. Nitrogen oxides are formed, where they reach the soil during raining.
3. (A) 1. c. Its mass $\times 10$ 2. b. more than
3. a. shoulder 4. a. 0°C
(B) 1. Because it protects the Earth from harmful radiations that come from the Sun.
2. To prevent mercury from returning back to the mercury bulb quickly in order to read the measurement easily.

4. (A) 1. Temperature 2. 2 kg.
3. photosynthesis 4. slightly movable
(B) 1. Carbon dioxide gas is prepared by adding dilute hydrochloric acid to calcium carbonate, then carbon dioxide gas is collected by the upward displacement of air.
2. By using ethyl alcohol.

18 Kafr El-Sheikh Governorate

1. (A) 1. kilogram - Newton
2. respiration - combustion
3. brain - spinal cord.
4. carbon dioxide - limewater.
(B) 1. To force the mercury back to the mercury bulb,
2. To prevent the friction between vertebrae during motion.

2. (A) 1. b. thermometer 2. d. 78%
3. d. Spinal cord 4. c. 300 gm.
(B) 1. Object's mass on moon = 30 kg.
2. Object's weight on the Earth
= Mass object $\times 10 = 30 \times 10$
= 300 Newton.

3. (A) 1. Heat conductors. 2. Catalyst.
3. Neuron. 4. Kilogram.
(B) 1. It is a device that is used to measure the weight of any object.
2. a. It is used in making dry ice which is used in refrigeration.
b. It is used in extinguishing fires.
c. It is used in making soft drinks.
d. It is used in making bubbled and tasty bread when adding yeast to dough.
e. It is necessary for photosynthesis process of green plants to produce food and oxygen gas.

4. (A) 1. (x) 2. (x) 3. (✓) 4. (x)
(B) 1. It will cause global warming and suffocation of living organisms.
2. Because it allows the movement in one direction only.

19 Behira Governorate

1. (A) 1. 0 - 100 2. 1
3. immovable 4. -39°C - 357°C
(B) 1. Carbon dioxide is produced during fermentation, so the bread becomes porous and tasty.
2. The body will lose its balance.

2. (A) 1. Newton. 2. thermometer.
3. Neuron. 4. Heat insulators.
(B) Is changing the volume of a liquid by changing the temperature where, liquids expand by heating and contract by cooling.
3. (A) 1. Copper 2. increases
3. nitrogen 4. white

- (B) 1. To prevent mercury from returning back to the mercury bulb quickly in order to read the measurement easily.
2. Because oxygen scarcely dissolves in water.

4. (A) 1. c. Air 2. a. proteins.
3. c. Dendrites 4. c. 35 : 42
(B) 1. Its mass on moon = 30 kg.
2. Its weight on the Earth
= Its mass (kg) $\times 10$
= 30 $\times 10 = 300$ Newton.

20 Ismailia Governorate

1. (A) 1. 0°C - 100°C 2. 33 - 12
3. balance - spring
4. carbon dioxide - oxygen
(B) 1. Medical thermometer and celsius thermometer according to the constriction:

Point of comparison	Medical thermometer	Celsius thermometer
Constriction:	Present	Absent

2. Heat conductors and heat insulators according to definition:

Point of comparison	Heat conductors	Heat insulators
Definition:	They are materials that let heat flow through.	They are materials that don't let heat flow through.

2. (A) 1. nitrogen 2. 250
3. Spinal cord 4. Copper
(B) 1. Protects the Earth from harmful radiations that come from the Sun.
2. Keep our bodies worm as they prevent the leakage of heat.
3. (A) 1. Slightly movable joints.
2. Oxidation. 3. Weight.
4. Temperature.
(B) 1. a. carbon dioxide,
b. the upward displacement of air.
2. The heat transfers from object A to the object B.

4. (A) 1. b. body balance.
2. a. calcium carbonate.
3. c. the human body.
4. b. increases.
- (B) 1. Because it remains in a liquid state between (-39°C) and (357°C) .
2. Because it acts in this reaction as a catalyst.

21 Banjua Samar Governorate

1. (A) 1. b. spring scale.
2. d. carbon dioxide
3. a. 78% 4. elbow.
- (B) 1. It protects the brain.
2. It is used to measure the temperature of human body.
2. (A) 1. (x) 2. (✓) 3. (✓) 4. (✓)
- (B) 1. Because aluminium is a good conductor of heat.
2. Because it doesn't burn and doesn't help in burning.

3. (A) 1. c 2. d 3. b 4. a

- (B) 1. Weight on the Earth
= Object Mass (kg) \times 10
= $12 \times 10 = 120$ Newton.
2. Weight on the moon
= Weight on the Earth $\times \frac{1}{6}$
= $120 \times \frac{1}{6} = 20$ Newton.

4. (A) 1. All the involuntary processes of the body will be disturbed causing death.
2. Train accidents will occur.

- (B) 1. Gram 2. 0°C
3. Cerebellum 4. Heat

22 Minia Governorate

1. 1. b. increases 2. a. Copper.
3. a. ethyl alcohol 4. b. oxygen
5. c. carbon dioxide 6. a. Spinal cord
2. (A) 1. balance - spring
2. Cooking pots - kettles
3. dilute hydrochloric acid - calcium carbonate.
4. brain - spinal cord

- (B) 1. Slightly movable.
2. Freely movable.
- (C) 1. It protects the brain.
2. It maintains the balance of the body during the movement.

3. (A) 1. WeightL 2. Oxygen gas.
3. Nitrogen.
4. Medulla oblongata.

- (B) 1. Its mass on the moon = 30 kg.
2. Its weight on the Earth
= Its mass (kg) \times 10
= $30 \times 10 = 300$ Newton.

- (C) 1. Because it doesn't burn and doesn't help in burning.
2. Because it allows the body to bend in different directions and it protects the spinal cord.

4. (A)

Points of comparison	Medical thermometer	Celsius thermometer
1. Scale :	From 35°C to 42°C	From 0°C to 100°C
2. Usage :	It is used to measure the temperature of the human body	It is used to measure the temperature of the liquids.
3. Used liquid :	Mercury.	Mercury.

- (B) 1. (x) 2. (x) 3. (✓) 4. (x)

- (C) 1. It is used in making dry ice which is used in refrigeration.
2. It is used in extinguishing fires.

23 Assiut Governorate

1. (A) 1. Newton 2. nitrogen
3. good 4. 33

- (B) 1. Its mass on the moon = 30 kg.
2. Its weight on the Earth
= Its mass (kg) \times 10
= $30 \times 10 = 300$ Newton.

2. (A) 1. (x) 2. (✓) 3. (x) 4. (x)

- (B) 1. The lower limbs will move in one direction only
2. It will cause global warming and suffocation of living organisms.

3. (A) 1. Spinal cord.
2. Oxy-acetylene flame.
3. Heat insulators. 4. Mass.
- (B) 1. Because it protects the Earth from harmful radiations that come from the Sun.
2. Because the skull protects the brain.

4. (A) 1. c. mercury. 2. b. Glass
3. c. Medulla oblongata
4. d. Carbon dioxide.

- (B) 1. medical
2. (a) Mercury bulb. (b) Constriction
(c) Capillary tube
(d) Transparent thick glass tube.

24 Sohag Governorate

1. (A) 1. b. Copper 2. b. Ozone layer
3. c. keeping the body balanced.
4. a. mass.

- (B) 1. It's weight on Earth
= It's mass \times 10
= $30 \times 10 = 300$ Newton.
2. It's weight on moon
= Its weight on Earth $\times \frac{1}{6}$
= $300 \times \frac{1}{6} = 50$ Newton.

2. (A) 1. (✓) 2. (x) 3. (x) 4. (✓)
(B)

Points of comparison	Celsius thermometer	Medical thermometer
1. Range of scale :	From 0°C to 100°C	From 35°C to 42°C
2. Its Uses :	It is used to measure the temperature of liquids.	It is used to measure the temperature of the human body.

3. (A) 1. Axial skeleton. 2. Weight.
3. Neuron.
4. Carbon dioxide gas.

- (B) 1. Because it doesn't help in burning.
2. Because wood and plastic are bad conductors of heat.

4. (A) 1. balance scale 2. slightly movable
3. water 4. Photosynthesis

- (B) Spinal cord.
(a) White matter. (b) Gray matter.

25 Qena Governorate

1. (A) 1. balance - spring
2. 35 - 42
3. hydrogen peroxide - manganese dioxide
4. brain - skull

- (B) 1. The body's weight on the moon
= Its weight on Earth $\times \frac{1}{6}$
 $10 = \text{Its weight on Earth} \times \frac{1}{6}$
The weight on Earth's surface
= $10 \times 6 = 60$ Newton.

2. The body's weight on the Earth
= Its mass \times 10
 $60 = \text{Its mass} \times 10$
The mass of the body = $\frac{60}{10} = 6$ kg.

2. (A) 1. a. expand
2. b. calcium carbonate.
3. d. spinal cord. 4. d. humerus.

- (B) 1. The weight of the body decreases as the gravitational force of the Earth for this person decreases.

2. The medical thermometer will be damaged, because the boiling point of water is 100°C .

3. (A) 1. Ozone. 2. Mass.
3. Joints. 4. Nitrogen.

- (B) 1. Because it allow heat to flow through.
2. Because it

- Controls the voluntary movements of the body as running in races.
- Receives nerve impulses from sense organs and sends the suitable responses to these impulses.
- Contains the centers of thinking and memory

4. (A) 1. (x) 2. (x) 3. (✓) 4. (x)

- (B) 1. nerve cell.
2. (a) Cell body. (b) Dendrites.
(c) Axon.

Final Exams

PART TWO

27 Final Exams of Governorates 2017



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Final Exams of Governorates

2017

1

Cairo Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The measuring unit of weight is, while the measuring unit of mass is
2. Copper is from conductors of heat.
3. Carbon dioxide molecule consists of one carbon atom linked with two atoms.
4. Nitrogen combines with a lighted magnesium composing substance.
5. The ribcage consists of pairs of ribs.

[B] Give reasons for :

1. Clear limewater becomes turbid when carbon dioxide passes in it.
.....
2. Oxygen cylinders are used during climbing mountains.
.....

2 [A] Write the scientific term of the following statements :

1. The building unit of the nervous system. (.....)
2. The amount of matter in an object. (.....)
3. The main control center in human body. (.....)
4. Gas is used in respiration and combustion processes. (.....)
5. Organ in the central nervous system responsible for the reflex action. (.....)

[B] Mention one function of :

1. The spring scale :
.....
2. Celsius thermometer :
.....
3. Ozone layer :
.....



3 [A] Put (✓) in front of correct statements and (✗) in front of incorrect one :

1. Oxygen gas represents 78% of the volume of the atmosphere. ()
2. Cooking pots are made of plastic. ()
3. Nitrogen gas is called azote which means "life gas". ()
4. Air is from good conductors of heat. ()
5. Oxy-acetylene flame is used in cutting and welding metals. ()
6. Cerebellum maintains the balance of the body during movement. ()

[B] What happens in the following cases ... ?

1. Continuous exposure the man to noise.

.....

2. Increase of carbon dioxide percentage in the atmosphere.

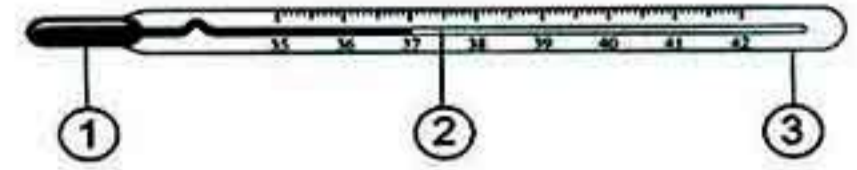
.....

4 [A] Choose the correct answer :

1. The lower fixed point in celsius thermometer scale represents the freezing point.
 - a. liquids
 - b. mercury
 - c. water
2. Backbone consists of bony vertebrae.
 - a. 12
 - b. 21
 - c. 33
3. From the freely movable joints is
 - a. shoulder
 - b. elbow
 - c. knee
4. A weight of body is 2 Newton so its mass is equal to
 - a. 0.2 gm
 - b. 20 gm
 - c. 200 gm
5. Hydrogen peroxide dissociates in the presence of manganese dioxide (as a catalyst) into
 - a. water
 - b. oxygen gas
 - c. water & oxygen gas

[B] Notice the following figure of medical thermometer, then label it :

- ①
- ②
- ③



2

Giza Governorate

The Educational Directorate

Answer the following questions :

1 [A] Choose the correct answer :

- From the substances which are bad conductors of heat is
a. iron b. wood c. copper
- Which of the following gases have great percentage in atmospheric air ?
a. Oxygen b. Nitrogen c. Carbon dioxide
- The joints which allow movement in one direction only are joints.
a. immovable b. slightly movable c. freely movable
- The operation of thermometer depends on the change of with the change in temperature.
a. gases volume b. liquid volume c. liquid mass
- The ribcage in man consists of pairs of ribs.
a. 10 b. 11 c. 12
- An object whose mass is (200 gm) on Earth's surface, so its weight equal
a. 2 Newton. b. 20 Newton. c. 200 Newton.

[B] What happen when ... ?

- We get rid of soil bacteria.
.....
- Exhaled air passes through clear limewater.
.....

2 [A] Complete the following statements:

- The weight of the body on moon's surface = of its weight on Earth's surface.
- Heat is a form of the forms of
- Divers use cylinder during diving under water.
- The centers of thinking and memory lie in
- The mass is measured by scale.
- Nitrogen is used in the manufacture of which doesn't rust.

[B] Compare between good conductors and bad conductors of heat :

Point of comparison	Good conductors of heat	Bad conductors of heat
Definition :



3 [A] Write the scientific term :

1. An indicator helps us to express the state of the body from point of hotness or coldness. (.....)
2. Long strips that fix muscles on bones. (.....)
3. The building unit of nervous system. (.....)
4. A force with which a body is attracted to the Earth. (.....)
5. A gas that its molecule is composed of three oxygen atoms. (.....)
6. An instrument used for measuring the temperature. (.....)

[B] Give reasons for :

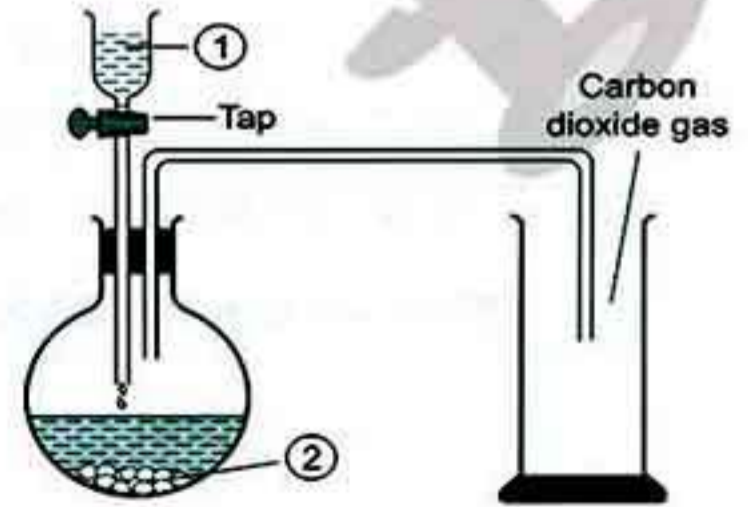
1. Damage of the medulla oblongata causes death.
.....
2. Carbon dioxide is used in extinguishing some fires.
.....

4 [A] Correct the underline word in the following statements :

1. Weight is a constant value and is not affected by changing the place. (.....)
2. The scale of the medical thermometer starts from 35°C to 100°C. (.....)
3. The axon of the nerve cell is surrounded by a gelatinous layer. (.....)
4. The cerebellum lies at the back area of the brain above the two cerebral hemispheres. (.....)
5. Hydrogen peroxide remains without change in quantity or properties during the preparation of oxygen gas. (.....)
6. The liquid that is used in making the thermometers is water. (.....)

[B] In the opposite figure answer the following :

1. Number ① Is
2. Number ② Is



3 Alexandria Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following :

1. The mass can be measured by and the weight can be measured by
2. The neuron consists of the cell body and which ends by the presence of
3. As the mass of the planet increases, its gravity and that leads to the weight of the object.
4. Carbon dioxide is prepared in the laboratory by adding to the powder of
5. Water freezes at Celsius and boils at Celsius.

[B] Mention the following only :

1. The substance that indicates presence of carbon dioxide. (.....)
2. An example of involuntary muscle. (.....)
3. The product substance from the combination of magnesium and oxygen. (.....)

2 [A] Write the scientific term of the following :

1. The part responsible for keeping the body balance during movement. (.....)
2. The degree of hotness or coldness of a body. (.....)
3. Locations of bones meeting that allow the movement between them. (.....)
4. A gas used in filling the planes and cars tires and also contributes in composing gunpowder. (.....)

[B] Correct the underlined words :

1. In preparing oxygen from hydrogen peroxide, Sodium hydroxide is used as a catalyst. (.....)
2. 12 pairs of ribs come out from the brain. (.....)
3. Iron is used in manufacturing kettles that are used in houses and factories. (.....)
4. The joint of shoulder is one of slightly movable joints. (.....)

3 [A] Choose the right answer from the following :

- The mass of one litre of water equals
a. 1 gm. b. 1 kg c. 100 Newton. d. 100 gm.
- Ozone gas consists of
a. One atom. b. two similar atoms.
c. three similar atoms. d. three different atoms.
- The gas that is used with acetylene gas in welding metals
a. hydrogen. b. oxygen. c. nitrogen. d. carbon dioxide.
- The centers of thinking and memory lies in
a. the medula oblongata. b. the spinal cord.
c. the vertebral column. d. the two cerebral hemispheres.

[B] Give reasons for the following :

- Passing the air on the hot copper during the preparation of nitrogen in lab.
.....
- The ribcage surrounds the heart and the two lungs.
.....
- Using wood in making the handle of cooking pots.
.....
- Using liquids in making the thermometers.
.....

4 [A] In the opposite figure that illustrates the structure of the medical thermometer :

- Number ① is a bulb contains
- Number ② is
- Number ③ is and its function is



- The thermometer scale starts from °C to °C.

[B] If the mass of a body equals 30 kg on the Earth surface. Calculate :

- Its mass on the moon surface.
.....
- Its weight on the Earth :
.....
- Its weight on the moon.
.....

[C] Compare between the structure of the axial skeleton and the appendicular skeleton :

Point of comparison	Axial skeleton	Appendicular skeleton
The structure

4

Kalyoubia Governorate

The Educational Directorate

Answer the following questions :

1 [A] Choose the correct answer :

- An object whose weight on the Earth's surface is 6 Newton, so its weight on the moon's surface is Newton.
 - 10
 - $\frac{1}{2}$
 - 1
 - $\frac{1}{6}$
- All the following are good conductors of heat except
 - aluminium and copper.
 - iron and aluminium.
 - copper and iron.
 - glass and wood.
- Hydrogen peroxide is used in preparing gas.
 - oxygen
 - hydrogen
 - nitrogen
 - carbon dioxide
- is from the reflex action.
 - Heartbeats
 - Eating on feeling hungry
 - Blinking when something gets close to the eye
 - (a) , (b) and (c)

[B] Give reason for each of the following :

- There is a constriction above the mercury bulb in the medical thermometer.
.....
.....
- It is necessary to eat healthy food that is rich in calcium and phosphorus.
.....
- It is necessary to leave spaces between the railway bars.
.....
.....
- The ribcage surrounds both the heart and the lungs.
.....

2 [A] Write the scientific term :

1. The system responsible for controlling all body systems. (.....)
2. A colourless gas that is the main component of all protein compounds. (.....)
3. The area where bones meet and allow the movement. (.....)
4. The thermometer whose scale ranges from 35°C to 42°C. (.....)

[B] Mention one function for each of the following :

1. Cerebellum :
2. Tendons :
3. The spring scale :
4. The ozone layer :

3 [A] What happens in the following cases ... ?

1. A lighted magnesium ribbon is placed in a jar filled with nitrogen gas.
.....
2. Drinking big quantities of soft drinks.
.....
3. All the substances that man use are good conductors of heat.
.....
4. Condensation of nitrogen gas.
.....

[B] Compare between mass and weight according to :

Points of comparison	Mass	Weight
1. Measuring unit :
2. Measuring device :

4 [A] Put (✓) or (✗) :

1. The liquid used in the medical thermometer is alcohol. ()
2. The shoulder joint is a freely moveable joint. ()
3. Cooking pots are made of plastic. ()
4. Heat transfers from a cold object to a hot object. ()

[B] Look at the following figure, then answer :

1. Write what each label represents on the figure :

①

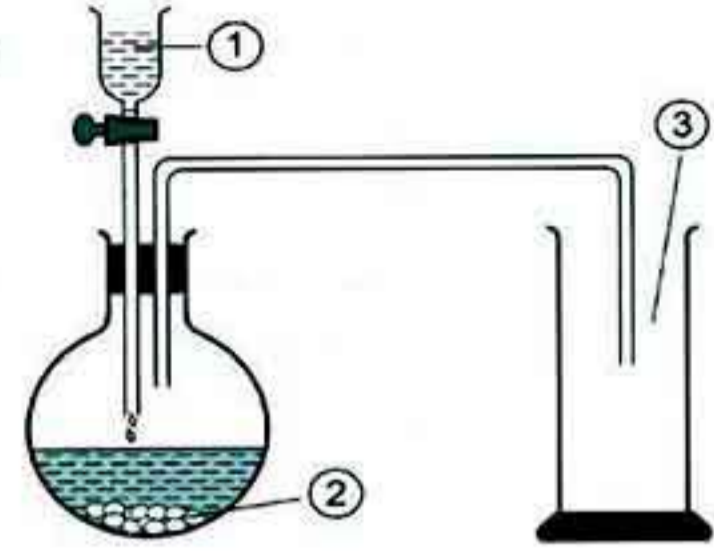
②

③ gas.

2. Mention one use for the evolved gas.

.....

.....



5

Sharkia Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

- The number of cranial nerves is and the number of spinal nerves is
- Oxygen is produced from process and carbon dioxide is produced from process.
- Heat transfers from the temperature object to the temperature object.
- As the mass of the planet on which the body exits increases, the of the planet increases and of the body increases.
- The main center of the control in your body is and it is found inside a bony case called

[B] Give reason for each of the following :

- Leaving spaces between the railway bars.

.....

- Ozone gas is very important in nature.

.....

2 [A] Write the scientific term of each of the following :

- The main source of preparing nitrogen gas. (.....)
- Materials that don't let heat flow through. (.....)
- What fixes muscles to bones. (.....)
- The gas that turns limewater turbid. (.....)
- The building unit of nervous system. (.....)

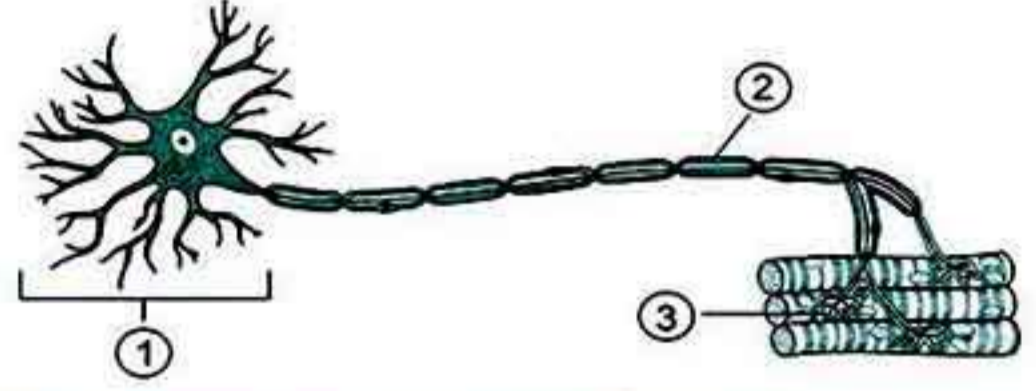
[B] Explain :

1. The mercury is used in manufacture of thermometers.

- a)
- b)

2. Observe the opposite figure, and write the labels :

- ①
- ②
- ③

**3 [A] What is the function of each of the following :**

1. Hydrogen peroxide during the preparation of oxygen in the laboratory.

.....

2. Spring scale.

.....

3. Celsius thermometer.

.....

[B] Choose the correct answer :

1. Among the freely movable joints are joints.

- a. knee b. thigh c. elbow d. skull

2. Celsius is the measuring unit of

- a. weight. b. temperature. c. volume. d. mass.

3. The metal that is better in conducting heat is

- a. aluminium. b. iron. c. copper. d. mercury.

4. The thoracic in the man consists of pairs of ribs.

- a. 11 b. 31 c. 12 d. 14

5. Oxygen is present in the atmosphere in gas state in form of molecules, its structure

- a. O₃ b. O c. O₂ d. O₄

4 [A] Correct the underlined words :

1. Calcium carbonate is used in preparation of nitrogen gas. (.....)

2. There is a constriction above the mercury bulb in the Celsius thermometer. (.....)

3. The mass of the material **decreases** after combination with oxygen. (.....)
4. **The spinal cord** controls the heartbeats. (.....)
5. Nitrogen is also called azote which means **life gas**. (.....)

[B] An object whose mass on Earth is equal to (6 Kg). Calculate :

1. Its weight on the surface of the Earth.
.....
2. Its weight on the surface of the moon.
.....

6

Menofia Governorate

The Educational Directorate

Answer the following questions :

1 [A] Choose the correct answer :

1. The weight is measured by scale.
a. sensitive b. digital c. two arm d. spring
2. The liquid used in the Celsius thermometer is
a. hydrogen peroxide. b. alcohol.
c. water. d. mercury.
3. Which of the following is faster in conducting heat ?
a. Glass. b. Aluminium. c. Copper. d. Iron.
4. One of the slightly movable joints is the joint.
a. thigh b. shoulder c. wrist d. knee
5. is used to make the iron handle.
a. Iron b. Copper c. Aluminium d. Plastic
6. Carbon dioxide is produced when diluted hydrochloric acid is added to the
a. calcium carbonate. b. calcium oxide.
c. calcium hydroxide. d. calcium chloride.

[B] What would happen in the following cases ... ?

1. The overuse of soft drinks.
.....
2. Not leaving spaces between railway bars.
.....



2 [A] Write the scientific term of each of the following statements :

1. The measurement unit of weight which is almost equal to a mass 100 grams. (.....)
2. A flame used in cutting and welding metals. (.....)
3. The degree of hotness or coldness of a body. (.....)
4. A gas contributes in composing proteins and living tissues. (.....)
5. The phenomenon which leads to raise in the Earth's temperature and causes changes in the climate. (.....)
6. An organ connects the brain with the spinal cord and is responsible for involuntary processes. (.....)

[B] An object's mass = 30 kg on the moon's surface. Calculate :

1. Its mass on the Earth.
.....
2. Its weight on the Earth's surface.
.....
3. Its weight on the moon's surface.
.....

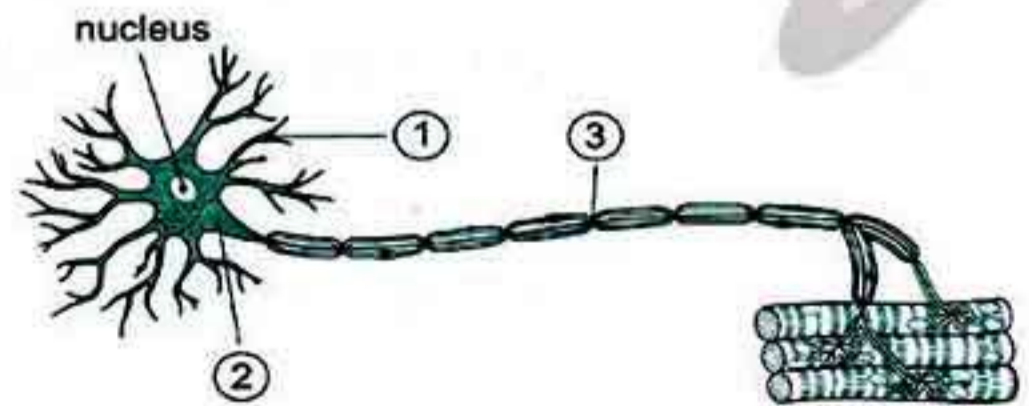
3 [A] Correct the underlined words :

1. The internal substance of the spinal cord is the yellow matter. (.....)
2. The liquid used in the medical thermometer is water. (.....)
3. Argon is used in extinguishing of fires. (.....)
4. The centers of thinking and memory are located in the medulla oblongata. (.....)
5. Hydrogen peroxide dissociates in the presence of manganese dioxide and produces helium gas and water. (.....)
6. The Earth gravitational force increases as the body moves away from the Earth. (.....)

[B] 1. What is the name of the opposite figure ?

2. Write down the labels on the figure.

- ①
- ②
- ③



4 [A] Complete the following statements by suitable words :

1. Materials are classified according to conducting heat into and
2. Mercury remains liquid between two degrees of temperature which are and
3. Carbon dioxide gas is converted into a liquid by and
4. The number of cranial nerves is pairs, while the number of spinal nerves is pairs.
5. The rapid union between oxygen and elements produces heat and light , it is named, whereas if it is slow in the presence of moisture , it is named
6. The controls the reflexes, while the cerebellum is responsible for

[B] Write the scientific reason of each of the following :

1. The windows in the cold countries are made of two sheets of glass with space containing air in between.
.....
2. Nitrogen is used in filling car tires.
.....
.....

7 Gharbia Governorate

The Educational Directorate

Answer the following questions :**1 [A] Complete the following statements :**

1. The scale of medical thermometer starts from °C and ends at °C.
2. The central nervous system in human consists of two main parts which are and
3. The main idea to make a thermometer is the change in of the liquid by changing
4. During photosynthesis process in green plants gas is produced, while burning of organic materials produces gas.
5. From measuring devices of mass is, whereas weight is measured by using



[B] Give reasons for each of the following :

1. Aluminium and stainless steel are used in making cooking pots.
.....
2. Nitrogen is used to store petroleum and some flammable materials.
.....
3. Increased ratio of carbon dioxide gas in the atmosphere in recent years.
.....

2 [A] Write the scientific term :

1. A gas exists in the atmosphere that protects Earth from harmful radiation coming from the Sun. (.....)
2. An instrument used for measuring the temperature of liquids. (.....)
3. The skeleton which includes the upper and lower limbs. (.....)
4. A form of energy transfers from an object to another if they differ in temperature. (.....)
5. A gas combines with oxygen to produce a flame whose temperature is sufficient to melt metals. (.....)

[B] An object whose mass on Earth equals 30 kg. Calculate :

1. Its weight on Earth :
2. Its weight on the moon :
3. Its mass on the moon :

3 [A] Choose the correct answer :

1. Addiction passively affects the nervous system causing
a. muscle stress. b. sprains. c. sleepless.
2. The gas which is used in making dry ice is gas.
a. carbon dioxide b. oxygen c. nitrogen
3. The weight of a person in a balloon at certain height from Earth's surface equals 70 Newton so, the weight of the person on Earth's surface is
a. 69 Newton. b. 70 Newton. c. 71 Newton.
4. All of the following are properties of mercury as a thermometrical substance except
a. good conductor of heat.
b. give limited extent to measure temperature.
c. not adhere to the walls of capillary tube.

5. Magnesium ribbon keeps burning inside a cylinder full of carbon dioxide gas forming
- a. magnesium oxide and coal. b. magnesium oxide and oxygen.
c. magnesium oxide and carbon dioxide.

[B] What would happen in the following cases ?

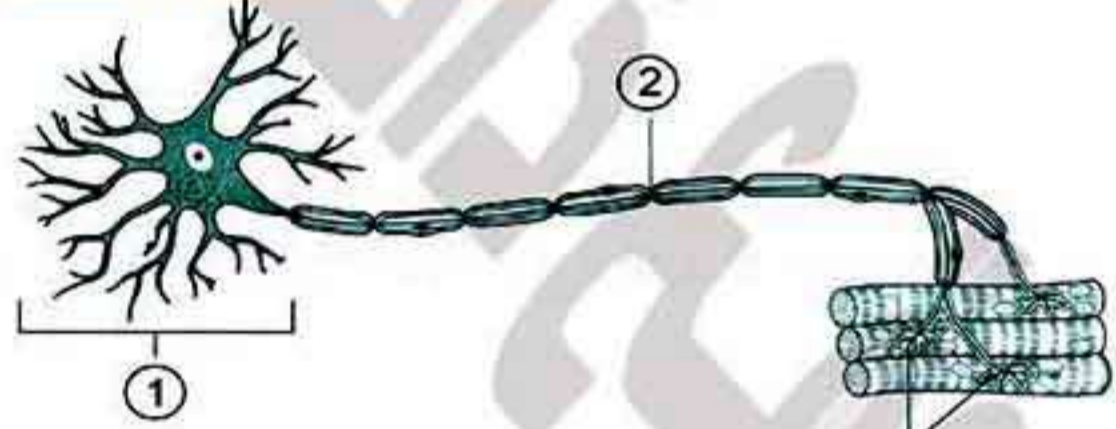
1. The mercury bulb of medical thermometer is broken and mercury is spilled inside the mouth of the person using it.
.....
2. The hand suddenly touches a hot object.
.....
3. Not leaving spaces between railway bars.
.....

4 [A] Correct the underlined words in the following :

1. Medulla oblongata maintains the body balance during motion. (.....)
2. Carbon dioxide gas is used in filling car tires. (.....)
3. Oxygen molecule consists of three oxygen atoms. (.....)
4. Aluminium conducts heat faster than copper. (.....)
5. Carbon dioxide gas reacts with clear limewater forming white precipitate of calcium hydroxide which is insoluble in water. (.....)

[B] Look at the opposite figure, then label the numbers.

- ①
- ②
- ③



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8 Dakahlia Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The device which is used to measure the temperature is
2. The central nervous system is composed of and

3. Preparation of oxygen in the laboratory from with manganese dioxide.
4. A body mass on the Earth's surface is 5 kg., the same body mass on the moon's surface is
5. We must avoid jumping from high places to avoid in our locomotory system.

[B] Mention one function or importance of each of the following :

1. Celsius thermometer.

.....

2. Dry ice.

.....

3. Hot copper in nitrogen preparation experiment.

.....

2 [A] Write the scientific term of each of the following :

1. The amount of matter that the body contains. (.....)
2. Types of muscles that work automatically and we can't control there movement. (.....)
3. A gas used in making soft drinks. (.....)
4. A part of brain which regulates the involuntary processes of the body. (.....)
5. A gas produced from green plants during photosynthesis process. (.....)

[B] Give reasons for each of the following :

1. Aluminium is used in making cooking pots.

.....

2. Presence of cartilages between the vertebrae of the backbone.

.....

3. Nitrogen is recently used in filling car tires.

.....

3 [A] Choose the correct answer :

1. From the materials which are good conductors of heat
a. plastic. b. air. c. wood. d. mercury.

2. A part of the nervous system responsible for reflex actions
 - a. cerebrum.
 - b. cerebellum.
 - c. medulla oblongata.
 - d. spinal cord.
3. From the properties of oxygen, it is soluble in water.
 - a. scarcely
 - b. rapidly
 - c. non
 - d. (a) , (b) and (c)
4. If an object's weight on the Earth's surface is (6) Newton, its weight on the moon's surface will be
 - a. 6 Newton.
 - b. 60 Newton.
 - c. $\frac{1}{6}$ Newton.
 - d. 1 Newton.
5. Carbon dioxide turbids the clear limewater due to formation of
 - a. calcium oxide.
 - b. calcium carbonate.
 - c. calcium hydroxide.
 - d. carbon.

[B] What would happen in the following cases ... ?

1. The reaction between nitrogen with oxygen by lightening.

.....

2. The constriction is not found in the capillary tube of the medical thermometer.

.....

3. All human bones are fixed with each other.

.....

4 [A] Put (x) or (✓) in front of the each of the following statements :

1. The weight is the force with which a body is attracted to the Earth. ()
2. Carbon dioxide molecule consists of one oxygen atom linked with two carbon atoms. ()
3. The medical thermometer scale starts from 32°C to 45°C. ()
4. Ozone gas consists of three oxygen atoms. ()
5. One kilogram equals 1000 grams which equal one liter of distilled water. ()
6. Humerus bone and forearm bones are from parts of lower limbs. ()

[B] Write two ways only to maintain our nervous system.

1.
2.

9 Ismailia Governorate

The Educational Directorate

Answer the following questions :

1 [A] Choose the correct answer :

- The Newton is nearly equals the weight of a body its mass is gm.
a. 10 b. 100 c. 1000 d. 10000
- From the immovable joints
a. shoulder joint. b. wrist joint. c. elbow joint. d. skull joints.
- When oxygen unites rapidly with elements and produces heat and light, this union is called
a. oxidation. b. burning. c. neutralization. d. decomposition.
- Determine which of the following materials is faster in conducting heat ?
.....
a. Aluminium. b. Iron. c. Copper. d. Glass.
- The gas contributes in the composition of soil fertilizers.
a. oxygen b. carbon dioxide c. nitrogen d. chlorine

[B] A piece of rock is placed in a pan of double pans balance, the sum of masses which are placed in the other pan is 300 gm. to make balance.

Answer the following :

- What is the mass of the piece of rock ?
.....
- What is the weight of the piece of rock on the Earth's surface?
.....
- What is the effect of changing the place on both mass and weight of the rock piece ?
.....
.....

2 [A] Put (✓) or (x) :

- Celsius thermometer is used in measuring the human body temperature. ()
- The cerebellum is responsible for keeping the body balance during movement. ()
- The cooking pots and kettles are made up of plastic. ()

4. Mercury is used in thermometers because it is a regular expanding material. ()
5. Mass is the force of Earth's gravity to a body. ()
6. Bones of the lower limbs are connected to the shoulder bones. ()

[B] What happens when ... ?

1. Putting a glowing magnesium ribbon in a jar containing carbon dioxide.
-
-

2. Your hand suddenly touches a hot body.
-

3 [A] Write the scientific term of each of the following :

1. A type of muscles that work automatically and you cannot control. (.....)
2. Materials that do not let heat flow through. (.....)
3. A flame used in cutting and welding metals. (.....)
4. The main control center in the human body. (.....)

[B] What is the role of each of the following :

1. Yeast in making bread.
-

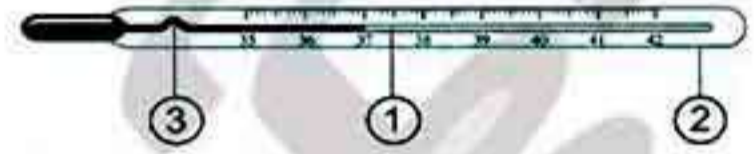
2. The ozone layer in the atmosphere.
-

[C] Look at the opposite figure, then answer :

1. What is the name of this figure ?

2. Write what is indicated by numbers :

- ①
- ②
- ③



4 [A] Complete the following statements with suitable words :

1. The mass is measured by scale, while the weight is measured by scale.
2. The oxygen gas is produced plentifully from during process.
3. Heat is a form of that transfers from the temperature object to the low temperature object.

4. Muscles are fixed to bones by, while are found between vertebrae of backbone to prevent their friction.
5. The peripheral nervous system consists of of cranial nerves and of spinal nerves.

[B] Give reasons for each of the following :

1. Heavy woolen clothes are used in winter.

.....

2. The bridges' pillars made of iron are isolated from moisture with paints.

.....

3. Reducing the intake of stimulating substances such as coffee.

.....

Answer the following questions :

1 Complete the following sentences :

1. All metals are conductors of heat.
2. Mass is constant and does not change with the change of
3. The heat is a form of the forms of
4. The percentage of carbon dioxide gas in atmosphere equals it has the symbol of
5. The brain consists of cerebrum, and
6. The backbone consists of vertebrae.

2 [A] Put (✓) or (x) :

1. The digital balance is used in measuring weight. ()
2. Copper is considered from bad conductors of heat. ()
3. Celsius thermometer is used to measure human temperature. ()
4. Nitrogen is called azote and its meaning gas of life. ()
5. The spinal cord is responsible for reflex actions in human body. ()
6. The knee joint is an immovable joints. ()

[B] Give reason for the following statements :

1. The decrease of green areas harm the environment.

.....

2. The cooking pots are made of aluminium, while its handles are made of plastic.
-
-

3 [A] Choose the correct answer from the following :-

- The gas which is used with acetylene in welding metals is gas.
a. oxygen b. nitrogen c. hydrogen d. carbon dioxide
- The weight of the body on Earth's surface is 6 Newton, so its weight on moon's surface equals
a. 1 kg. b. 1 Newton c. 6 kg. d. 6 Newton
- The thoracic cage in the man consists of pairs of ribs.
a. 10 b. 11 c. 12 d. 13
- The part which is responsible for keeping human body balance is
a. two cerebral hemispheres. b. cerebellum.
c. medulla oblongata. d. spinal cord.
- Hydrogen peroxide decomposes in presence of manganese dioxide to
a. oxygen and hydrogen. b. oxygen and water.
c. hydrogen and water. d. hydrogen and manganese.
- Oxygen is present in the atmosphere in gas state in form of molecules its structure
a. O b. O₂ c. O₃ d. O₄

[B] A body its mass is 10 kg. Calculate its weight of an earth's surface.

.....

.....

4 [A] Look at the opposite figure, then answer :

1. Write the name of figure.
-



2. Label the figure :

- ①
- ②
- ③

[B] Correct the underlined words :

1. Different metals transfer heat by the same rate. (.....)
2. Nitrogen gas is used in extinguishing fires. (.....)
3. The molecule of ozone gas consists of four oxygen atoms. (.....)
4. Cartilages link bones with muscles. (.....)

11 Port Said Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The force of Earth's attraction to a body is called and is measured in a unit called
2. Plastic is a conductor of heat and is used in making
3. During the preparation of gas, hot copper combines with the found in the air.
4. The medical thermometer scale starts from degree Celsius until 42 degree Celsius and every degree is divided into
5. The human axial skeleton consists of, ribcage and
6. gas turbids limewater because of the formation of which doesn't dissolve in water.

[B] Answer the following question :

Which of the following two thermometers has a constriction :
medical or Celsius thermometer and why it has this constriction ?

.....
.....

2 [A] Correct the underlined words :

1. Water is a regular expanding material. (.....)
2. Nitrogen gas protects the Earth from harmful radiations. (.....)
3. The operation of thermometer depends on the change of the density of the liquid inside with the change in temperature. (.....)
4. In the human nervous system, medulla oblongata is responsible for receiving nerve impulses from sense organs and sending responses to these impulses. (.....)

[B] If the weight of a certain body on Earth's surface is 300 Newton.
Calculate its :

1. Mass.

.....

2. Weight on Moon's surface.

.....

[C] Explain each of the following :

1. Pungent odour evolves as a result of adding water to the product of burning magnesium in nitrogen.

.....

2. There are cartilages between vertebrae of the backbone.

.....

3 [A] Choose the correct answer :

1. Nitrogen is used in making

a. dry ice.

b. fertilizers.

c. soft drinks.

2. The weight of a human in a balloon away from the Earth's surface will not be equal to his weight on Earth's surface because of the in the effect of Earth's gravitational force as we go away from Earth's surface.

a. decrease

b. stability

c. increase

3. The muscles of the are voluntary muscles.

a. heart

b. urinary bladder

c. trunk

4. One of the properties of carbon dioxide is being

a. heavier than air.

b. lighter than air.

c. scarcely soluble in water.

[B] Compare between cranial nerves and spinal nerves, in terms of :

Points of comparison	Cranial nerves	Spinal nerves
1. The place where they emerge from :
2. Their numbers :

[C] What would happen in each of the following cases ? And why ?

1. The mass of cleansing wire after burning.

.....

.....

2. Making the handle of a kettle from copper.

.....

4 [A] Write the scientific term of each of the following :

1. A gas is molecule that consists of two atoms of oxygen and one atom of carbon. (.....)
2. An indicator that helps us to express the degree of hotness of coldness of a body. (.....)
3. The location where two bones meet together in the human body. (.....)
4. A gas prepared by using hydrogen peroxide. (.....)

[B] Mention one function of :

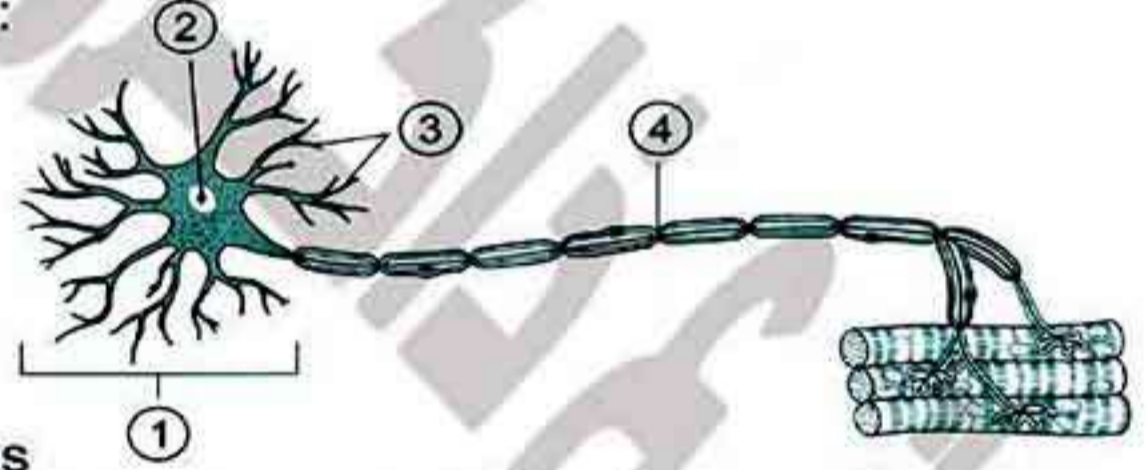
The balance scale :

.....

[C] Examine the opposite figure , then answer the following questions :

1. Write the labels on the drawing :

- ①
- ②
- ③
- ④



2. The opposite drawing represents

.....

Answer the following questions :

1 [A] Complete the following statements :

1. The is used in measuring the temperature of liquids, whereas the is used in measuring the temperature of the human body.
2. Water consists of united of one atom of with two atoms.

3. The human skeletal system consists of and
4. Mass is measured by using and the measurement unit of the weight is

[B] Correct the following statements :

1. The skull joints are from slightly movable joints.
.....
2. When the mass of an object on Earth's surface equals 6 kilogram, so its weight on moon's surface is 60 newton.
.....
3. Aluminium conducts heat faster than copper and iron.
.....
4. The atmosphere protects the Earth by absorbing the gases coming from outer space.
.....

2 [A] Choose the correct answer :

1. From bad conductors of heat are
a. iron and aluminium
b. copper and glass
c. glass and wood
d. aluminium and copper
2. The scientist who discovers the nitrogen gas is
a. Anders Celsius
b. Joseph priestley
c. Daniel Rutherford
d. Antoine Lavoisier
3. All the following from the components of central nervous system except
a. spinal nerves.
b. two cerebral hemispheres.
c. spinal cord.
d. medulla oblongata.
4. When the exhaled air passes through clear limewater it turbids due to the formation of
a. calcium carbonate.
b. calcium oxide.
c. calcium hydroxide.
d. calcium sulphate.
5. The measuring device of the weight is
a. sensitive scale
b. two arms scale
c. the spring scale
d. digital scale
6. fix muscles with bones.
a. Tendons
b. Joints
c. Muscular fibers
d. (a) and (b).



[B] What happens in the following cases ?

1. The over use of stimulation substances.

.....
.....

2. The percentage of carbon dioxide gas increases in the atmospheric air.

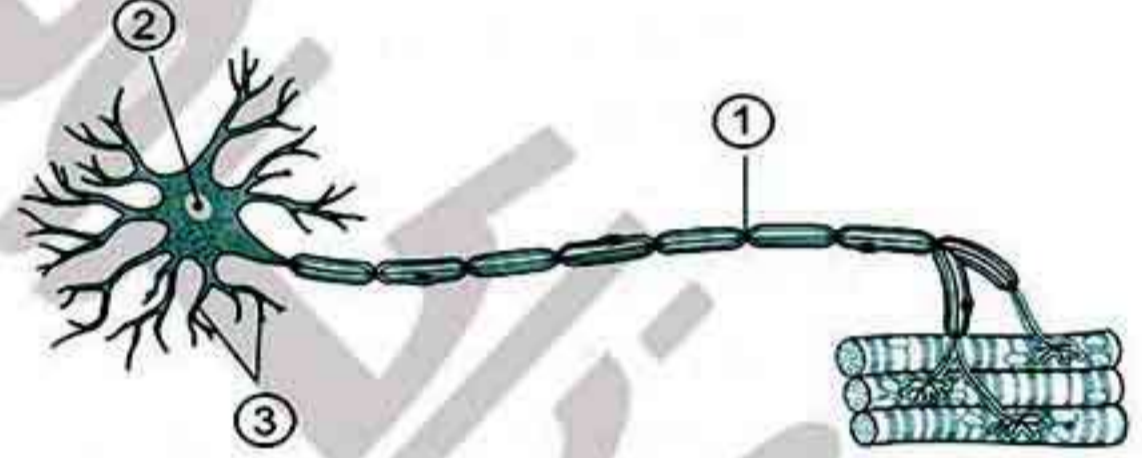
.....
.....

3 [A] Write the scientific term of the following statements :

1. The amount of matter that the body contains. (.....)
2. Spontaneous response of the body to different stimuli. (.....)
3. A gas that is prepared from hydrogen peroxide. (.....)
4. Type of muscles act spontaneously and cannot be controlled. (.....)
5. It is the degree of hotness or coldness of a body. (.....)
6. A flame used in cutting and welding metals. (.....)

[B] Look at the opposite figure, then answer the questions :

1. This figure indicates the structure of
2. Label the points as indicated by the figures :



- ①
- ②
- ③

4 [A] Give reasons for the following statements :

1. The handles of cooking pots are made of wood or plastic, while the cooking pots are made of aluminium.
-
.....
2. During preparation of nitrogen gas in laboratory, air is passed in potassium hydroxide solution and over a hot copper.
-
.....

3. The weight of the body differs according to the planet where the object exists.

[B] Mention one function of :

1. The constriction above the bulb in the medical thermometer.

2. The two cerebral hemispheres.

13

Kafr El-Sheikh Governorate

The Educational Directorate

Answer the following questions :

1 [A] Write a scientific term :

1. Gas increase in its percentage in air leads to the suffocation of living organisms. (.....)

2. The amount of matter in an object. (.....)

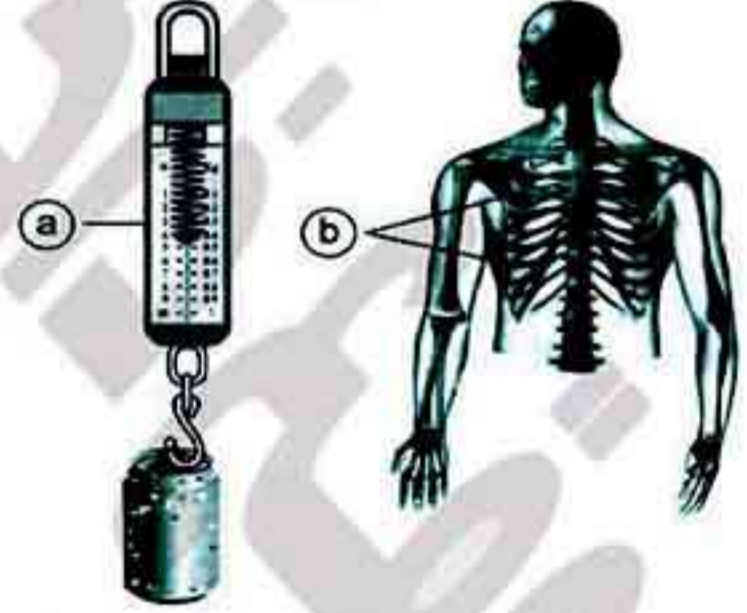
3. It consists of the bones of upper and lower limbs. (.....)

4. It is the degree of hotness or coldness of a body. (.....)

[B] Look at the following figures, then answer the following questions :

1. Figure (a) represents the
which is used to measure

2. Figure (b) represents the
which its function is



[C] Mention :

1. The importance of manganese dioxide in the preparation of oxygen.

2. The function of the cerebellum.

2 [A] Choose the correct answer :

1. Limewater is

a. calcium carbonate.

c. calcium hydroxide.

b. calcium oxide.

d. calcium sulphate.

2. From reflex actions
- a. heartbeats. b. eating when hungry.
c. blinking when something gets close to the eye.
d. all the previous.
3. The main idea to make a thermometer is changing the of the liquid according to changing the temperature.
- a. volume b. density c. mass d. weight
4. The Newton is nearly equals the weight of a body its mass is
- a. 10 g. b. 100 g. c. 1000 g. d. 10000 g.

[B] Give reason for each of the following :

1. Oxygen is collected by downward displacement of water.
.....

2. The handles of cooking utensils are made of wood or plastics.
.....

[C] Compare between :

Points of Comparison	Immovable joints	Freely movable joints
Definition :
Example :

3 [A] Complete the following statements :

1. Cerebral hemispheres is the largest part of the brain, it consists of two halves separated by and attached to each other through
2. The main component in protein is which is known as
3. The movement is generated by the ability of cells to contract and relax.
4. The scale of medical thermometer starts from °C to °C.
5. As the mass of the planet on which the object exists increases, the object's increases.

[B] Correct the underlined words :

1. The used liquid in the medical thermometer is water. (.....)
2. Ozone molecule is composed of two atoms of oxygen. (.....)

3. **Muscles** prevent the friction between vertebrae of backbone during movement. (.....)
4. Carbon dioxide is prepared in the laboratory from the reaction between hydrochloric acid and **copper sulphate**. (.....)

4 [A] Select in column (B) the appropriate in column (A) :

(A)	(B)
1. Potassium hydroxide solution	a. 12 pairs of nerves.
2. Nitrogen gas	b. It is used to absorb carbon dioxide when preparing nitrogen in the laboratory from the air.
3. Cranial nerves	c. It is used in filling car tires.
	d. Regulating heartbeats

1. 2. 3.

[B] Put (✓) in front of the correct statements and (✗) in front of the false ones :

1. Oxy-acetylene flame is used in cutting and welding metals. ()
2. The medulla oblongata delivers nerve messages from the body organs to the brain and vice versa. ()
3. The mass of materials decreases after combination with oxygen. ()

[C] Look at the figure in front of you and, then answer for the following :

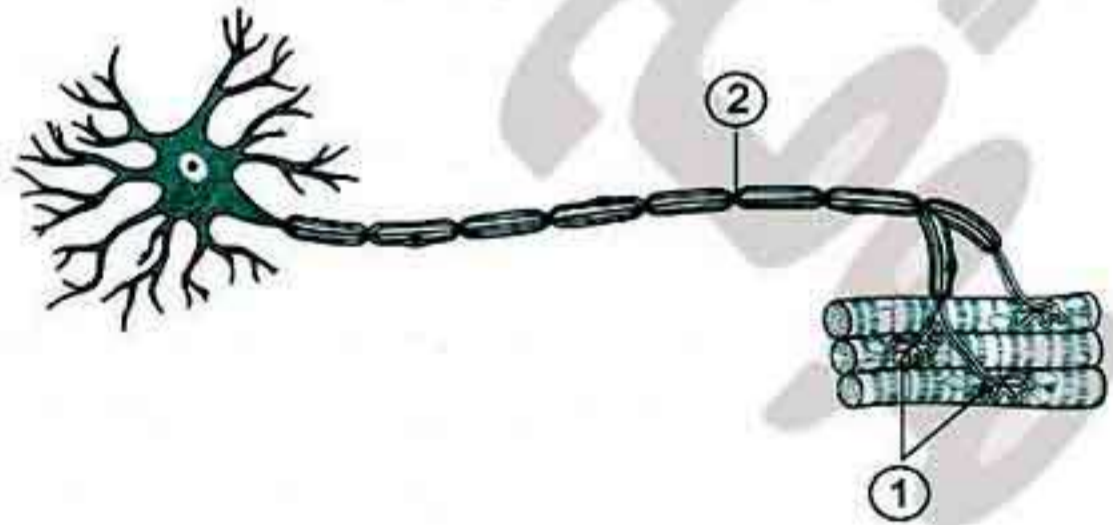
1. What the name of the opposite figure ?

.....

2. Write the name of labels ① and ②

①

②



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Answer the following questions :

1 [A] Complete the following statements :

- Oxygen gas is prepared from in presence of
- The number of vertebrae of vertebral column in human body is and the number of spinal nerves is pairs.
- is used in measuring temperature of different liquids, whereas is used in measuring the temperature of the human body.
- The main center of the control in your body is and it's found inside a bony case called
- The water is freezed at and boiled at

[B] Fill in the following table :

Points of Comparison	Mass	Weight
Definition :
Effect of different places :
Direction :

2 [A] Write the scientific term of each of the following statements :

- An organ responsible for the reflex actions of the body. (.....)
- A gas used as an inactive material in the tanks of liquefied explosives such as petroleum. (.....)
- An indicator helps in expressing the state of the body from the point of hotness and coldness. (.....)
- A gas can be prepared from adding dilute hydrochloric acid to calcium carbonate powder. (.....)
- Long strips that fix muscles on bones. (.....)
- Materials are used to make handles of cooking pots. (.....)

[B] Mention one function of :

1. Oxy-acetylene flame.

.....

2. The constriction in the capillary tube in the clinical thermometer.

.....

3 [A] Choose the correct answer :

1. When a glowing magnesium ribbon is placed in a jar containing carbon dioxide on the walls of the jar, the element formed is

a. magnesium. b. carbon. c. nitrogen.

2. Myelin sheath surrounds the

a. nerve cell axon. b. cerebellum. c. spinal cord.

3. Which of the following is faster in conducting heat ?

a. Aluminium. b. Iron. c. Copper.

4. Which of the following gasses have great percentage in atmospheric air ?

a. Oxygen. b. Nitrogen. c. Carbon dioxide.

5. The Newton is nearly equals weight of a body its mass gm.

a. 10 b. 100 c. 1000

[B] Give reasons for each the following statements :

1. Nitrogen is used in filling car tires.

.....

2. The necessary of eating healthy food rich in calcium.

.....

3. Clear limewater becomes turbid when carbon dioxide passes in it.

.....

4 [A] What would happen in each of the following cases ... ?

1. Adding the yeast to dough on making bread.

.....

.....

2. Nitrogen is not present in the atmospheric air.

.....

.....

3. A body moves away from the center of the Earth.

.....

[B] Mention :

1. Why is mercury preferred in making a thermometers ? (4 reasons)

①

②

③

④

2. Three ways of maintaining the human nervous system .

①

②

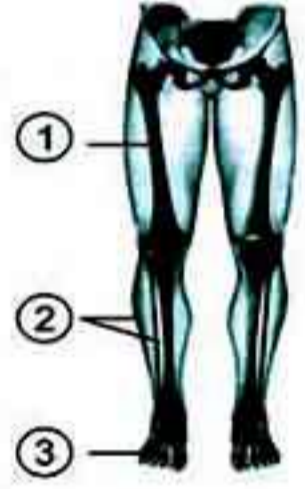
③

3. The name of bones in lower limbs as on figure.

①

②

③



Answer the following questions :

I [A] Complete the following statements :

1. The measuring unit of mass is whereas the measuring unit of weight is

2. The main center of the control in your body is and it is found inside a bony box called

3. The oxygen gas is produced plentifully from during process.

[B] Mention one function of each of the following :

1. Ribcage.

.....

2. The oxy-acetylene flame.

.....

2 [A] Choose the correct answer :

- Which of the following is faster in conducting heat ?
a. Iron. b. Copper. c. Aluminium. d. Wood.
- Which of the following joints is limited movement ?
a. Shoulder. b. Wrist. c. Elbow. d. Thigh.
- If the body weight on earth's surface equals 6 Newton, its weight on moon's surface equals
a. 1 kgm. b. 1 Newton. c. 6 kgm. d. 6 Newton.
- Which of the following gases has great percentage in atmospheric air ?
a. Oxygen. b. Nitrogen. c. Ozone. d. Carbon dioxide.
- Which of the following is responsible for keeping the body balance ?
a. Medulla oblongata. b. Two cerebral hemispheres.
c. Spinal cord. d. Cerebellum.

[B] What would happen in the following cases ... ?

- A nail wetted with water is exposed several days to humid air.
.....
- The over take of stimulating substances.
.....
.....

3 [A] Correct the underlined words :

- The weight is constant and does not change from one place to another. (.....)
- The axon of the nerve cell is surrounded by gelatinous layer. (.....)
- The liquid used in the thermometer is the alcohol. (.....)
- Oxygen gas is prepared from hydrogen peroxide dissociates in the presence of carbon dioxide gas. (.....)
- From the brain (10) pairs of cranial nerves come out. (.....)

[B] Give reasons for the following :

- Nitrogen is collected by the displacement of water downward during its preparation in the laboratory.
.....
- In the clinical thermometer there is a constriction above mercury reservoir.
.....

4 [A] Write the scientific term of the following :

1. The attraction force of the Earth to the body. (.....)
2. A gas molecules consists of three atoms of oxygen. (.....)
3. The substances that do not allow heat to pass through. (.....)
4. A gas used in the storage of petroleum and some inflammable substances. (.....)
5. An organ responsible for the reflex actions of the body. (.....)

[B] Look at the opposite figure, then answer :

1. Write what represents each label on the figure :

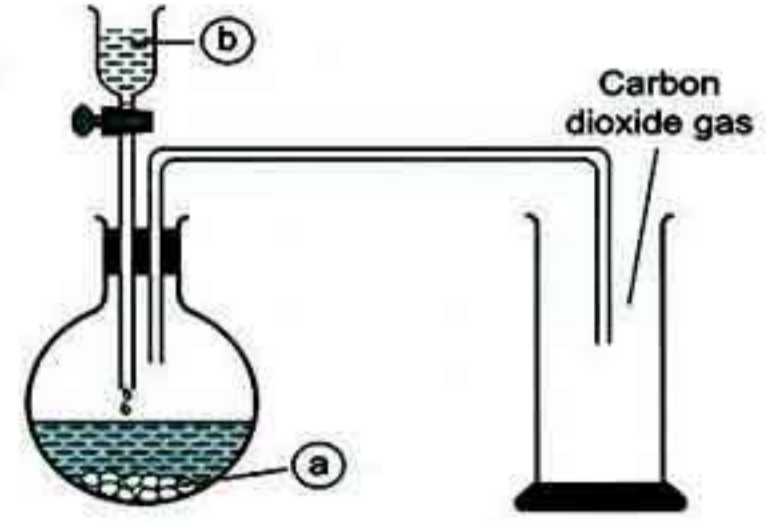
– Substance (a) :

– Liquid (b) :

2. Mention two uses of carbon dioxide gas :

①

②



Answer the following questions :

1 Complete the following statements :

1. Carbon dioxide gas converts into liquid by and
2. Balance scale is used to measure, whereas scale is used to measure weight.
3. Temperature is the degree of or of a body.
4. The neuron consists of two main parts which are and

2 Give reasons for :

1. Damage of medulla oblongata causes death.

.....

2. Yeast is added to dough on making bread.

.....

3. Gastrointestinal tract muscles are involuntary muscles.

.....

4. Nitrogen gas is used in filling car tires.

.....

3 [A] Choose the correct answer :

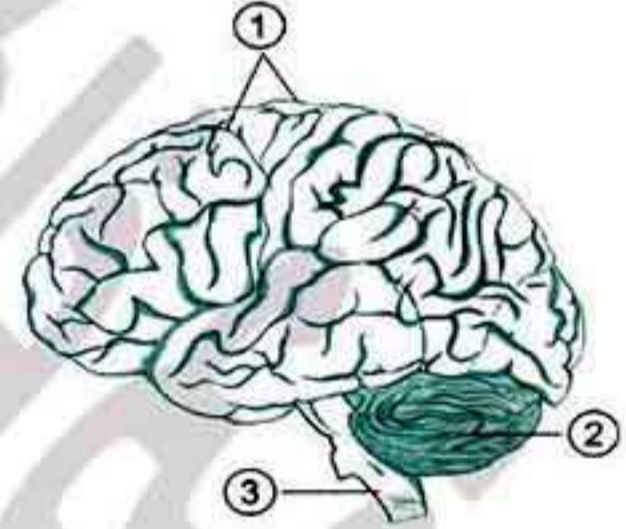
- From the substances which are bad conductors of heat
a. iron. b. aluminium. c. air. d. copper.
- If the body weight is 40 Newton, so its mass equals
a. 4 kg. b. 400 kg. c. 40 kg. d. 4000 kg.
- Joints which allow movements in one direction only are joints.
a. slightly movable b. immovable c. freely movable
- Mercury remains liquid between two degree temperature °C
a. - 39 : 357 b. 39 : - 357 c. zero : 100

[B] Write the scientific term of each of the following statements :

- Automatic response of the body to different stimuli. (.....)
- Long strips in the muscles fix it into bones. (.....)
- Liquid used in making thermometers. (.....)
- The force with which a body is attracted to the Earth and it always towards the center of the Earth. (.....)

4 [A] Examine the following figure and complete :

-
-
-
- The function of number. ② is
.....



[B] What are the differences between oxidation and burning ?

Points of Comparison	Oxidation	Burning
1. Definition :
2. Example :



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Answer the following questions :

1 Complete the following statements :

1. The mass is measured by using, while the measurement unit of weight is
2. Nitrogen represents, while oxygen represents of the volume of the atmosphere.
3. The number of spinal nerves is
4. A weight of an object can be measured by the
5. Oxygen is prepared from in presence of

2 Write the scientific term of each of the following statements :

1. The location of bones touch and allow moving. (.....)
2. Gas is produced according to the availability of green plants. (.....)
3. A tool used to measure the temperature of the human body. (.....)
4. The amount of matter in an object. (.....)

3 [A] What happens when ... ?

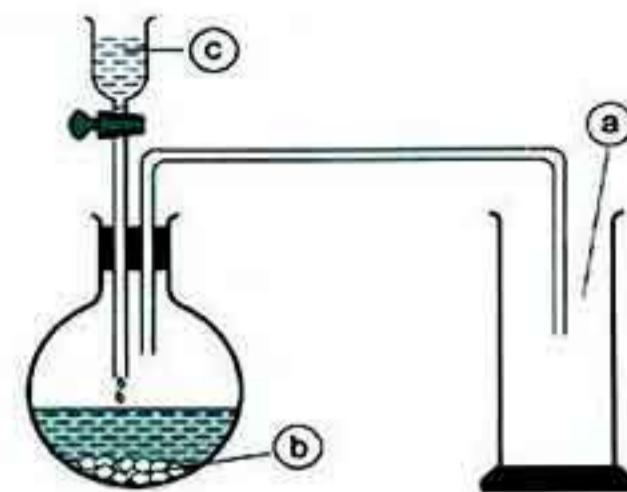
1. Insert a lighted magnesium ribbon in cylinder filled with nitrogen gas.
.....
2. When carbon dioxide gas is passed in limewater.
.....
.....

[B] Give reasons for each of the following :

1. Cooking pots are made of aluminium, while its handles are made of plastic or wood.
.....
.....
2. Ozone gas is very important in nature.
.....
.....
3. The infection of medulla oblongata lead to death.
.....
.....

4 [A] Notice the following figure and write down the labels on the figure :

1. Gas (a) is
2. Substance (b) is
3. Liquid (c) is



[B] If an object's mass = 30 kg. on Earth. Calculate :

1. Its weight on the Earth.
.....
2. Its weight on the Moon.
.....

[C] Put (✓) or (x) in front of the following statements :

1. Heat transfers from a cold object to a hot object. ()
2. Nitrogen is used to make stainless steel. ()
3. Mercury is good conductor of heat. ()

18

Assiut Governorate

The Educational Directorate

Answer the following questions :

1 Complete the following statements :

1. The weight is measured in unit, while the mass is measured in unit.
2. gas is used in composing gunpowder, while gas is used in welding metals.
3. The main center of the control in your body is and it is found inside a bony case called
4. The heat is a form of the forms of
5. The number of cranial nerves in human body is pairs of nerves.

2 [A] Choose the correct answer :

1. The planet on which the body weight equals 6 times as its weight on the moon is
- a. Earth. b. Mars. c. Jupiter.

2. From the examples of substances which are good conductor of heat
 - a. glass.
 - b. iron.
 - c. wood.
3. The nerve cell body consists of
 - a. nucleus.
 - b. cytoplasm and plasma membrane.
 - c. all the previous.
4. A gas can be prepared by using calcium carbonate powder and dilute hydrochloric acid is
 - a. oxygen.
 - b. hydrogen.
 - c. carbon dioxide.
5. The weight of a body its mass 10 kg. on Earth surface nearly equals
 - a. 10 Newton.
 - b. 100 Newton.
 - c. 1000 Newton.
6. Oxygen gas represents percentage of the Earth atmosphere.
 - a. 21%
 - b. 78%
 - c. 89%

[B] Mention one function of the following :

1. The joints.

.....

2. The ozone layer.

.....

3 [A] Write the scientific term of the following statements :

1. A gas is used in manufacture of soft drinks. (.....)
2. Ligaments ties muscles with bones. (.....)
3. The amount of matter that the body contains. (.....)
4. A tool used in measuring the temperature of liquid substances. (.....)

[B] Join from column (A) what is suitable from column (B) :

(A)	(B)
1. Copper	a. is a bad conductor of heat.
2. Plastic	b. conducts heat faster than aluminium.
3. Mercury	c. is a liquid used in sterilizing of thermometers before usage.
4. Alcohol	d. is used in manufacture of fertilizers.
	e. is a liquid used in manufacture of thermometers.

1.

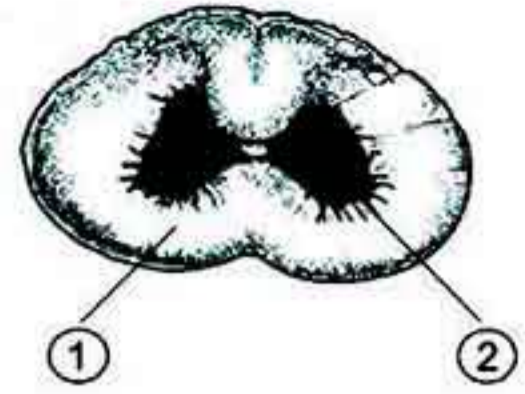
2.

3.

4.

4 [A] Notice the following figure for the spinal cord and write down the labels on the figure :

- ①
- ②



[B] Give reasons for the following :

1. Cooking utensils (pots) are made of aluminium.
.....
2. Nitrogen gas is used in filling cars and aeroplanes tires.
.....

[C] What would happen in the following cases ?

1. A nail from iron wetted with water is exposed several days to humid air.
.....
2. There is no a constriction above mercury reservoir (the bulb) in the medical thermometer.
.....

19 Sohag Governorate

The Educational Directorate

Answer the following questions :

1 [A] Choose the correct answer :

1. Which of the following is from the slightly movable joints ? joint.
a. Elbow b. Thigh c. Wrist d. Shoulder
2. When an object's mass on the moon equals 50 kg. then its mass on the Earth should equal kg.
a. 50 b. 100 c. 200 d. 500
3. When a lighted magnesium ribbon is placed in a jar containing carbon dioxide, on the wall of jar the element formed is
a. oxygen. b. nitrogen. c. carbon. d. magnesium.
4. All of the following are materials that conduct heat except
a. iron. b. copper. c. aluminium. d. plastic.
5. Nitrogen is used in manufacture of
a. fire extinguisher. b. soft drink. c. fertilizers. d. dry ice.



[B] What would happen in the following cases ... ?

1. A nail wetted with water is exposed for a long period to humid air.

.....

2. The over intake of stimulating substances such as coffee and tea.

.....

3. There is no constriction above the bulb of mercury in the medical thermometer.

.....

.....

2 [A] Write the scientific term of each of the following statements :

1. A chemical compound dissociates in the presence of manganese dioxide into water and oxygen. (.....)

2. A tool used for measuring the objects weight. (.....)

3. The automatic involuntary response of the body when it is exposed to an external stimuli. (.....)

4. Materials that let heat flow through. (.....)

5. A gas used in the storage of petroleum and some inflammable substances. (.....)

[B] Look at the opposite figure, then answer the questions :

1. Write what each number refers to on the figure :

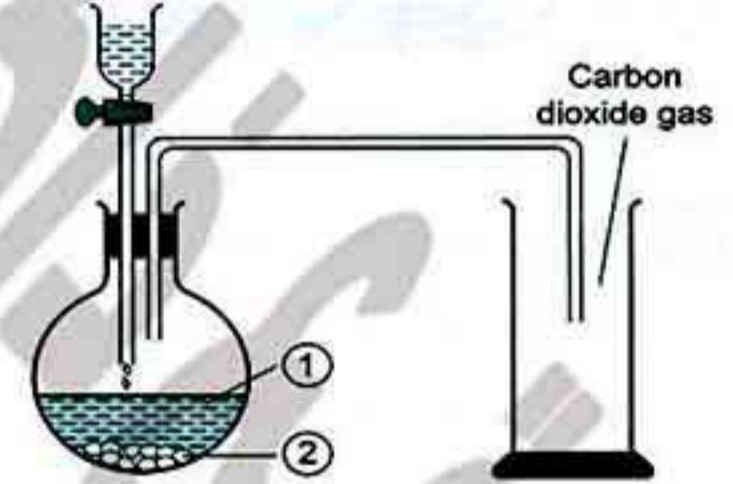
– Liquid ① is

– Material ② is

2. How the gas is collected ? And why ?

.....

.....



3 [A] Complete the following statements :

1. It's necessary to eat healthy food rich in calcium and phosphorus to prevent diseases.

2. is the gas which is called azote that means "lifeless" because it does not help in burning.

3. The number of the spinal nerves is, where as the number of the cranial nerves is

4. The medical thermometer is used to, where as the celsius thermometer is used to

[B] An object whose mass on Earth is equal 12 kg. Calculate :

1. Its weight on the surface of the Earth.
.....

2. Its weight on the surface of the moon.
.....

4 [A] Give reasons for the following :

1. The heart and lungs are surrounded by ribcage.
.....

2. Ozone layer has a great importance in the life of creatures on the Earth surface.
.....

3. The weight of the body on Earth's surface differs from its weight on another planet.
.....

4. Air is used in making insulating glass windows.
.....

[B] Correct the underlined words :

1. An example for the involuntary muscles is the face muscles. (.....)

2. In respiration and combustion, carbon dioxide is consumed. (.....)

3. Iron is considered the fastest metal in conducting heat. (.....)

4. The centers of thinking and concentration lie in medulla oblongata. (.....)

20

Qena Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. Oxygen gas is prepared from in presence of

2. Mass is a constant amount and doesn't affect by changing

3. thermometer is used to measure the temperature of water.

4. The nervous system consists of two main systems which are and

[B] Mention one use (importance) for each of the following :

1. Oxy-acetylene flame.
.....

2. Cartilages between vertebrae of the backbone.
.....

2
Part

2 [A] Put (✓) or (✗) in front of the following statements :

1. Ozone gas consists of two oxygen atoms and symbolized by O₃ ()
2. Carbon dioxide gas is used in the manufacture of gunpowder. ()
3. The scale of medical thermometer starts from 35°C to 42°C. ()
4. Nitrogen gas occupies 78% of the atmospheric air components. ()
5. In legumes, the nodular bacteria fix nitrogen on their roots. ()

[B] Give reasons for :

1. There is a constriction above the mercury bulb in the medical thermometer.
.....
2. Carbon dioxide gas is used in extinguishing fires.
.....
3. Damage of medulla oblongata leads to death.
.....

3 [A] Choose the correct answer :

1. The best metal to conduct heat is
a. aluminium. b. copper. c. iron.
2. Newton equals the weight of an object whose mass is grams.
a. 10 b. 100 c. 1000
3. The ribcage in the human body consists of of ribs.
a. 10 pairs b. 11 pairs c. 12 pairs
4. A gas used to fill some types of lamps is
a. oxygen. b. carbon dioxide. c. nitrogen.
5. A tool which is used to measure the weight is
a. spring scale. b. digital scale. c. two arm scales

[B] If the object's mass = 30 kg. on the Earth. Calculate :

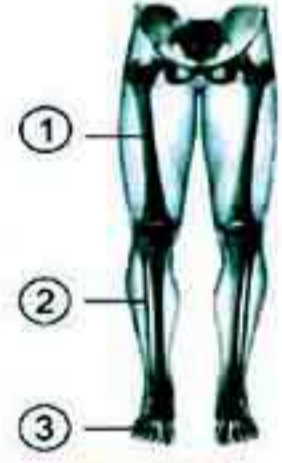
1. Its mass on the moon.
.....
.....
2. Its weight on the Earth.
.....
.....
3. Its weight on the moon.
.....
.....

4 [A] Write the scientific term of the following statements :

1. An organ which is responsible for the reflex action. (.....)
2. A form of energy that transfers from the higher temperature object to the lower temperature object. (.....)
3. The gas that turbids limewater. (.....)
4. Materials that let heat flow through. (.....)
5. The amount of matter in an object. (.....)

[B] Look at the opposite figure, then write what the numbers point to :

- ①
- ②
- ③



21

Luxor Governorate

The Educational Directorate

Answer the following questions :

1 Complete the following statements :

1. The graduation of clinical thermometer begins from °C and ends at°C.
2. consists of 33 vertebrae, with between them to prevent their friction during movement.
3. As the mass of the planet increases, its increases and the object's on its surface increases.
4. The main center of the control in your body is and it is found inside a bony box called

2 [A] Write the scientific term of each of the following :

1. Types of muscles act spontaneously and cannot be controlled. (.....)
2. A gas is used in making of stainless steel. (.....)
3. Part of the nervous system that is responsible for reflex actions. (.....)
4. A gas its molecule consists of three oxygen atoms. (.....)



5. The type of skeleton which includes the bones of upper and the lower limbs. (.....)
6. The liquid that is used in making of the Celsius thermometer. (.....)

[B] Give a reason for each of the following :

1. Oxygen gas is collected by displacing the water downwards during preparation in the laboratory.
.....
2. Damage of the medulla oblongata causes death.
.....

3 [A] Put (✓) or (✗) in front of the following statements :

1. Mass is the force of the Earth's gravity on an object. ()
2. Handles of cooking pots are made of wood. ()
3. Nitrogen gas reacts easily with most other elements. ()
4. Oxygen gas does not burn and it does not help in burning. ()

[B] Choose the correct answer from the following :

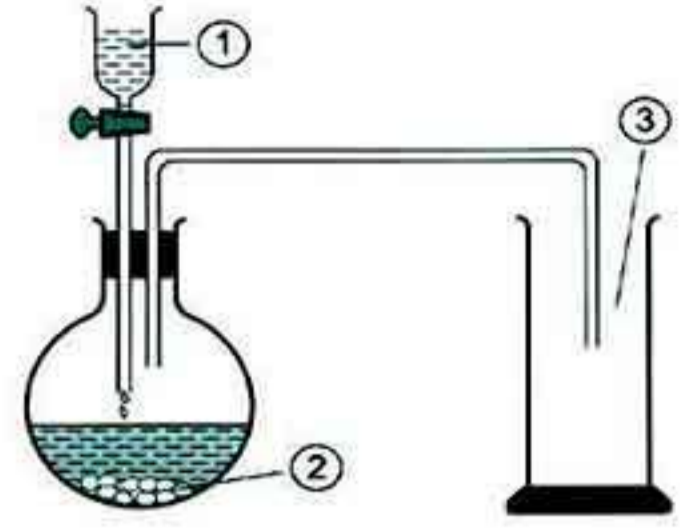
1. One of the examples of heat conductors is
a. plastic. b. paper. c. iron.
2. The joint which allows the movement in one direction only is joint.
a. immovable b. slightly movable c. freely movable
3. Nitrogen is used in manufacturing of
a. fertilizers. b. soft drinks. c. dry ice.
4. Hydrogen peroxide is used in the preparation of
a. oxygen. b. nitrogen. c. carbon dioxide.

4 [A] If an object's mass = 30 kg. on Earth's surface. Calculate :

1. Its mass on the moon's surface.
.....
2. The weight on the Earth's surface. [Note : start by writing the law]
The law is :
.....

[B] Look at the following figure, then answer :

1. This apparatus is used for the preparation of
2. Write what represents each label on the figure :
 ①
 ②
 ③



22

Aswan Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The clinical thermometer is graduated from °C to °C.
2. In photosynthesis process, the plant absorbs gas and produce gas.
3. From the examples of substances which are bad conductors of heat and
4. The axial skeleton in the man consists of, and
5. Mass is a constant and is not affected by

[B] Give one importance for the following :

1. Oxy-acetylene flame.
.....
2. Cartilage.
.....

2 [A] Choose the correct answer from the following :

1. Your weight on Earth surface is 600 Newton, so your weight on moon surface is Newton.
 a. 6 b. 60 c. 100 d. 10
2. When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar, the element formed is
 a. carbon. b. nitrogen. c. magnesium. d. oxygen.
3. Which of the following is faster in conducting heat ?
 a. Aluminium. b. Copper. c. Iron. d. Glass.

2
Part

4. All the following from the properties of mercury as thermometrical substance except
 - a. good conductor of heat.
 - b. its expansion is regular.
 - c. give limited extent to measure the temperature.
 - d. not adhere to the walls of capillary tube.
5. All the following are from the constituents of the brain except
 - a. two cerebral hemispheres.
 - b. cerebellum.
 - c. medulla oblongata.
 - d. spinal cord.

[B] Give reasons for the following :

1. Ozone layer has great importance in the life on the Earth surface.
.....
2. The infection of modulla oblongata leads to death.
.....

3 [A] Give scientific term of the following :

1. Materials that let heat flow through. (.....)
2. The amount of Earth gravity to the body. (.....)
3. Ligaments tie muscles with bones. (.....)
4. A gas used in ammonia industry. (.....)
5. The automatic response of the body when it is exposed to outer stimuli. (.....)

[B] What would happen in the following cases ... ?

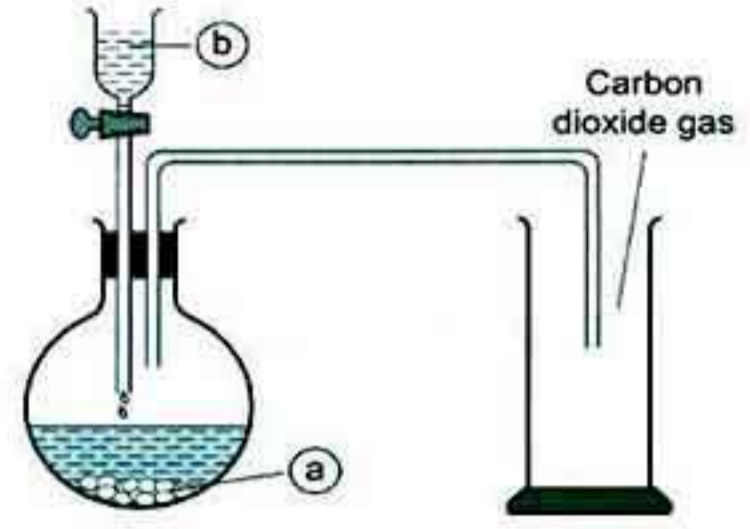
1. A nail wetted with water is exposed several days to humid air.
.....
2. A man is exposed to noise continuously.
.....

4 [A] Put (✓) or (x) in front of the following statements :

1. Celsius thermometer is used to measure the temperature of different liquids. ()
2. The digital balance is used in measuring weight. ()
3. Wrist joint is freely movable joint. ()
4. Heat transfers from hot body to cold body. ()
5. Oxygen gas occupies 78% of the atmospheric air components. ()

[B] Look at the opposite figure, then answer :

- Write what represents each label on figure :
 - Substance (a) is
 - Liquid (b) is
- Mention one use of the carbon dioxide gas :
.....
.....
.....



23

New Valley Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following sentences :

- Weight is the force by which to the Earth.
- is produced from plants during the photosynthesis process.
- thermometer is used for measuring the temperature of water.
- is used for manufacturing of soil fertilizers.

[B] Mention the importance of each of the following :

- Oxy-acetylene flame.
.....

- Spring scale.
.....

- Hot copper in preparing nitrogen from air.
.....

- Ozone layer.
.....

2 [A] Choose the correct answer :

- It is not from the upper limbs
a. humerus. b. forearm. c. shaft.
- When a mass of cleaning wire, which is made of iron gets burned in air with oxygen, its mass
a. increases. b. decreases. c. doesn't change.

3. Silver liquid metal
- a. iron. b. copper. c. mercury.
4. The number of the spinal nerves in human is
- a. 12 pairs. b. 31 pairs. c. 33 pairs.

[B] Mention the defectives of the addiction on the nervous system (only two) :

.....

.....

[C] Give reasons for the following :

1. Isolating the iron pillars of bridges from air by paints.
-
2. Carbon dioxide is used in extinguishing fires.
-

3 [A] Put (✓) in front of the right sentence and (×) in front of the wrong sentence :

1. Mass of object is stable amount at any place. ()
2. Oxygen cylinders are used during climbing mountains. ()
3. Carbon dioxide is collected by displacing water downward. ()
4. Iron and copper are considered conducting materials to heat. ()
5. During the reflex action, nerve impulses transmit through sensory nerve fiber to the spinal cord. ()

[B] What happened when ... ?

1. Passing carbon dioxide gas (CO_2) in calcium hydroxide (limewater).
-
2. Never leaving spaces between railways.
-
3. Adding little amount of water on a lighted magnesium ribbon in nitrogen.
-

4 [A] Compare between the following :

Comparison	Voluntary muscles	Involuntary muscles
Definition :
Example :

[B] An object's weight on the Earth's surface is 300 Newton, calculate :

1. Its mass on the Earth.

.....

2. Its weight on the moon.

.....

.....

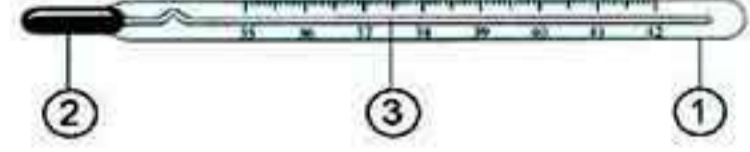
[C] Look at the medical thermometer in front of you, then answer :

1. Write what do numbers refer to :

①

②

③



2. Complete :

1. It is used in

2. The beginning of its scale is °C and end at °C

24

South Sinai Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The clinical thermometer is graduated from °C to °C.

2. Hydrogen peroxide is used in preparation of gas.

3. Nitrogen gas occupies% of atmospheric air.

4. and are from bad conductors of heat.

[B] Give reason for the following :

1. The ribcage surrounds both the heart and the lungs.

.....

2. Oxygen gas is collected by down displacement of water.

.....

[C] Compare between mass and weight according to :

Points of comparison	Mass	Weight
Device :
Unit :

2 [A] Put (✓) or (✗) in front of the following statements and correct the false ones :

1. Aluminium conducts heat faster than copper. ()
.....
2. Wrist in hand from freely movable joints. ()
.....
3. Oxygen gas is used in cooling. ()
.....
4. The weight is constant and does not change with the change in place. ()
.....

[B] Mention one use for the following :

1. Good conductors of heat.
.....
2. Bad conductors of heat.
.....

[C] Look at the following figure then answer :



1. What is the name of this device ?
.....
2. Mention the use of this device.
.....
3. What is the liquid which is used in making it ?
.....

3 [A] Choose the correct answer :

1. The weight of a body on Earth's surface is 20 Newton, so its mass equals
a. 2 kg. b. 20 kg. c. 200 kg. d. 2000 kg.
2. In respiration and combustion, the gas is consumed.
a. nitrogen b. argon c. oxygen d. carbon dioxide
3. All the following are from good conductors of heat except
a. iron. b. glass. c. copper. d. aluminium.
4. Photosynthesis process in the plant depends on the presence of gas.
a. oxygen b. nitrogen c. ozone d. carbon dioxide

[B] What would happen in the following cases ... ?

1. When your hand suddenly touches a hot surface.
.....

2. The percentage of carbon dioxide gas increases in the atmospheric air.
.....

[C] Mention one function of each of the following :

1. The cartilages.
.....

2. Nitrogen gas.
.....

4 [A] Write the scientific term of each of the following statements :

1. The force with which a body is attracted to the Earth. (.....)

2. A gas which change clear limewater turbid. (.....)

3. An organ consists of 33 vertebrae. (.....)

4. A gas which is necessary for rusting process. (.....)

[B] Join from (A) what is suitable from column (B) :

(A)	(B)
1. Cranial nerves	a. responsible for involuntary processes.
2. Spinal nerves	b. responsible for voluntary processes.
3. Medulla oblongata	c. responsible for reflex action.
4. Spinal cord	d. are 31 pairs.
	e. are 12 pairs.

1.

2.

3.

4.

25 North Sinai Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following sentences :

1. The number of vertebrae of vertebral column is

2. The main center of the control in your body is

3. The thermometer is used in measuring the water temperature.

4. The weight of the body on Earth's surface increases as the increases.

5. The nitrogen gas occupies % of atmospheric air.

6. The gas which is used with acetylene in welding metals is gas.

[B] Give reason for the following :

1. Carbon dioxide gas is used in putting off fires.

.....

2. Aluminium is used in manufacturing of cooking pans.

.....

2 [A] Write the scientific term :

1. The amount of matter that the body contains. (.....)

2. A gas molecule consists of three atoms of oxygen. (.....)

3. The location of bones touch and allow moving. (.....)

4. A part of nervous system responsible for reflex action. (.....)

5. A gas used in ammonia industry. (.....)

6. The gas that turns limewater turbid. (.....)

[B] Define each of the following :

1. Temperature.

.....

2. The bad heat conductor substances.

.....

3 [A] Choose the correct answer :

1. Hydrogen peroxide is used in preparation of

a. hydrogen. b. oxygen. c. nitrogen. d. carbon dioxide.

2. From the example of freely movable joints

a. knee. b. thigh. c. elbow. d. all the previous.

3. The centers of thinking and memory lie in

a. medulla oblongata. b. spinal cord.
c. cerebellum. d. two cerebral hemispheres.

4. Your weight on Earth surface is 600 Newton, so your weight on moon surface is Newton.

a. 6 b. 60 c. 100 d. 10

5. Nitrogen is used in manufacture of

a. fire extinguisher. b. fertilizers. c. soft drink. d. dry ice.

6. The best metal in conducting heat is

a. aluminium. b. copper. c. iron. d. mercury.

[B] Mention one function of each of the following :

1. Spring scale.

.....

2. The ribcage.

.....

4 [A] Choose from column (B) what is suitable from column (A) :

(A)	(B)
1. Kilogram	a. is a liquid used in manufacture of thermometers.
2. Celsius degree	b. is the measuring unit of mass.
3. Mercury	c. keep the balance of human body during movement.
4. Weight	d. is the measuring unit of temperature.
5. The two arm balanced scale	e. is the force with which a body is attracted to the Earth.
6. Cerebellum	f. is a device of measurement of mass.

1. 2. 3. 4. 5. 6.

[B] What would happen in the following cases ... ?

1. An iron nail wetted by water is exposed several days to humid air.

.....

2. The over intake of tea and coffee.

.....

26

Red Sea Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The mass is measured in unit.

2. The medical thermometer scale starts from degree to degree.

3. The number of cranial nerves is pairs.

4. The oxygen gas is consumed during and processes.



[B] Write one function of :

1. The spring scale.

.....

2. Spinal cord.

.....

2 [A] Choose the correct answer :

- From the examples of widely movable joints
a. knee. b. thigh. c. elbow.
- The gas used to fill some types of lamps is
a. oxygen. b. ozone. c. nitrogen.
- Which is faster to conduct heat
a. aluminium. b. iron. c. copper.
- The part which is responsible for keeping human body balance is
a. two cerebral hemispheres b. cerebellum
c. spinal cord
- From the bad conductors of heat
a. iron and aluminum. b. copper and glass.
c. glass and wood.
- The gas present in the air with 21% is
a. oxygen. b. nitrogen. c. water vapor.

[B] What happen when ... ?

- Carbon dioxide gas percentage increases in the atmospheric air.
.....
- The overuse of tea and coffee during exams.
.....

3 [A] If the mass of a body = 30 kg. on the Earth calculate :

1. Its weight on the Earth.
.....

2. Its weight on the moon.
.....

[B] Write the scientific term :

1. Matter which allow heat pass through. (.....)

2. A gas used to extinguishing fire. (.....)

3. A tool which is used for measuring liquids temperature. (.....)
4. A long strips fix muscles with bones. (.....)
5. The unit building of nervous system. (.....)
6. The main source to prepare nitrogen gas. (.....)

4 [A] Correct the underlined word in each of the following statements :

1. The liquid used in medical thermometer is alcohol. (.....)
2. Hydrogen gas is used in welding and cutting metal when combine with acetylene gas. (.....)
3. The vertebral column consists of 34 vertebra. (.....)
4. Carbon dioxide gas is needed for rusting process. (.....)
5. The ozone molecule consists of four oxygen atoms. (.....)
6. The handles of cooking pans made up of copper. (.....)

[B] Give reason for the following :

1. There is a constriction in the medical thermometer.
.....
2. Your weight on the moon less than that on the Earth.
.....

27 Matrouh Governorate

The Educational Directorate

Answer the following questions :

1 [A] Complete the following statements :

1. The heat is a form of the forms of
2. The is the measuring unit of mass, whereas the is the measuring unit of weight.
3. is the main control center in human body.
4. The oxygen percentage in the air is % and nitrogen percentage in the air is %

[B] Mention the function of each of the following :

1. The ribcage.
.....

2. Oxy-acetylene flame.
.....

2 [A] Choose the correct answer :

- Different metals differ in conducting heat, the fastest is
a. iron. b. copper. c. aluminium. d. gold.
- An object whose mass on Earth is equal to 15 kg. its mass on the moon is
a. 15 kg. b. 15 Newton. c. 150 kg. d. 150 Newton.
- The gas used to fill some types of lamps is
a. oxygen. b. nitrogen. c. ozone. d. carbon dioxide.
- is a bad conductor of heat.
a. Copper b. Wood c. Gold d. Mercury

[B] Give reason for the following :

- Nitrogen is used in filling car tires.
.....
- Ozone layer has a great importance to the human life and all living organisms.
.....
- Mercury is preferred in making thermometers (two only).
.....

3 [A] Write the scientific term :

- A gas turbids the clear limewater. (.....)
- A gas used in ammonia industry. (.....)
- A human organ consists of an internal substance in the grey matter and it appears in the shape of letter (H) surrounded by the white matter. (.....)
- Automatic response of the body to different stimuli. (.....)
- The materials that let heat flow through. (.....)

[B] Calculate the mass of an object on the Earth if its weight on the Earth is equal 190 Newton.

.....

4 [A] Put (✓) or (✗) in front of the following statements, then correct the wrong ones :

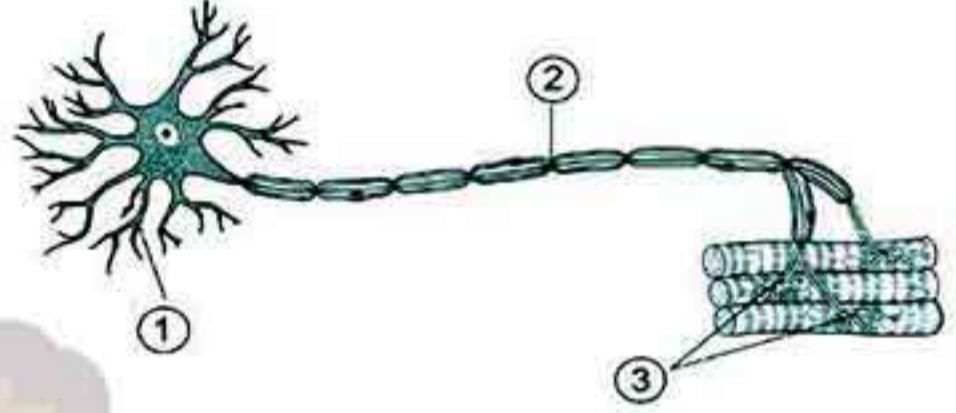
- The number of cranial nerves is 31 pairs. ()
.....
- The molecule of ozone gas consists of two oxygen atoms. ()
.....

3. The heat transfers from the cold object to the hot object. ()

4. Knee joint is considered ed as freely movable joint. ()

[B] From the opposite figure, complete :

- ①
- ②
- ③
- ④ The figure. is



ذاكروليا
RaNia SaYed



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3 Part

1 Cairo Governorate

- 1 (A) 1. Newton – kilogram (or gram).
2. good. 3. oxygen.
4. white. 5. 12
- (B) 1. Due to the formation of calcium carbonate which doesn't dissolve in water.
2. Because the ratio of oxygen gas decreases when we rise above the Earth's surface.
- 2 (A) 1. Neuron. 2. Mass.
3. The brain. 4. Oxygen gas.
5. Spinal cord.
- (B) 1. It is used to measure the weight of objects.
2. It is used to measure the temperature of liquids.
3. It protects the Earth from harmful radiation coming from the Sun.

- 3 (A) 1. (x) 2. (x) 3. (x)
4. (x) 5. (✓) 6. (✓)
- (B) 1. The nervous system will be exhausted.
2. The temperature of Earth will increase and living organisms will suffocate.

- 4 (A) 1. c. Water. 2. c. 33
3. a. shoulder. 4. c. 200 gm.
5. c. water & oxygen gas.
- (B) 1. Mercury bulb.
2. Capillary tube.
3. Thick glass tube.

2 Giza Governorate

- 1 (A) 1. b. wood. 2. b. Nitrogen.
3. b. slightly movable.
4. b. liquid volume.
5. c. 12 6. a. 2 Newton.
- (B) 1. Legumes such as clover, peas and soybeans can't produce proteins in the absence of soil bacteria.
2. Limewater turns into milky due to the presence of carbon dioxide in the exhaled air.

- 2 (A) 1. $\frac{1}{6}$
2. energy.
3. oxygen. 4. cerebrum.
5. balance. 6. stainless steel.
- (B)

Good conductors of heat	Bad conductors of heat
They are materials that let heat flow through.	They are materials that don't let heat flow through.

- 3 (A) 1. Temperature. 2. Tendons.
3. Neuron. 4. Weight.
5. ozone gas. 6. Thermometer.
- (B) 1. Because medulla oblongata controls all the involuntary processes such as heartbeats.
2. Because carbon dioxide doesn't burn and doesn't help in burning.

- 4 (A) 1. Mass. 2. 42
3. fatty. 4. below.
5. Manganese dioxide.
6. mercury.
- (B) 1. dilute hydrochloric acid.
2. calcium carbonate.

3 Alexandria Governorate

- 1 (A) 1. balance scale – spring scale.
2. The axon – axon terminals.
3. increases – increasing.
4. dilute hydrochloric acid – calcium carbonate.
5. Zero° – 100°
- (B) 1. Limewater.
2. Blood vessels muscles.
3. Magnesium oxide.

- 2 (A) 1. Cerebellum. 2. Temperature.
3. Joints. 4. Nitrogen.
- (B) 1. manganese dioxide.
2. nerves. 3. Aluminium.
4. knee.

- 3 (A) 1. b. 1 Kg.
2. c. three similar atoms.
3. b. oxygen.
4. d. the two cerebral hemispheres.
- (B) 1. To remove oxygen gas from the atmospheric air by combining with it.

Guide Answers of Final Exams

2. To protect the heart and the lungs.
3. Because wood doesn't allow heat to pass through as it is bad conductor of heat.
4. Because the volume of liquids change by changing the temperature as liquids expand by heating and contract by cooling.
- 1 (A) 1. mercury. 2. capillary tube.
3. constriction – to prevent mercury from going back to the bulb quickly.
4. 35 – 42
- (B) 1. 30 Kg.
2. Its weight on the Earth = its mass $\times 10$
 $= 30 \times 10$
 $= 300$ Newton.
3. its weight on the moon = $\frac{1}{6}$ its weight on the Earth $\times \frac{1}{6}$
 $= 300 \times \frac{1}{6} = 50$ Newton.
- (C)

Axial skeleton	Appendicular skeleton
It consists of the skull, the backbone and the ribs.	It consists of the bones of the upper limbs and the bones of the lower limbs.

4 Kalynouba Governorate

- 1 (A) 1. c. 1. 2. d. glass and wood.
3. a. oxygen.
4. b. Blinking when something gets close to the eye.
- (B) 1. To prevent mercury from going back quickly to the mercury bulb in order to read the measurement easily.
2. To prevent bone diseases such as osteomalacia and ricket.
3. To avoid train accidents, where iron is a good conductor of heat that expands and twists by heat.
4. To protect the heart and the lungs.

- 2 (A) 1. Nervous system. 3. Joints.
2. Nitrogen. 4. Medical thermometer.
- (B) 1. It keeps the balance of the body during movement.
2. They fix the muscles with bones.

3. It is used to measure the weight of objects.
4. It protects the Earth from harmful radiation coming from the Sun.

- 3 (A) 1. A white substance is produced.
2. It causes osteoporosis and may cause death.
3. We can't make handles of cooking pots and also we can't make heavy clothes that keep us warm in winter.
4. Liquefied nitrogen is produced that is used in cooling.
- (B)

Points of comparison	Mass	Weight
1. Measuring unit :	Kilogram or gram.	Newton
2. Measuring device :	Balance scale – sensitive two arms scale – one arm digital scale – one arm scale with a pointer.	Spring scale

- 4 (A) 1. (x) 2. (✓) 3. (x) 4. (x)
- (B) 1. 1. Dilute hydrochloric acid.
2. Calcium carbonate.
3. Carbon dioxide.
2. It is used in making soft drinks.

5 Sharkia Governorate

- 1 (A) 1. 12 paris – 31 paris
2. photosynthesis – burning.
3. higher – lower.
4. gravity – weight.
5. The brain – skull.
- (B) 1. To avoid train accidents, where iron is good conductor of heat that expands and twists by heat.
2. Because it protect the Earth from harmful radiation coming from the Sun.
- 2 (A) 1. Atmospheric air. 2. Heat insulators.
3. Tendons. 4. Carbon dioxide.
5. Neuron.

هذا العمل حصري على موقع ذاكرولى التعليمى ويسمح بمشاركته فقط ولا يسمح بالانترنت

3 Part

- (B) 1. a. It is good conductor of heat.
b. It is a regular expanding material.
2. ①. Cell body.
② Myelin sheath.
③ Axon terminals.

- ③ (A) 1. It dissociates in the presence of manganese dioxide into oxygen gas and water.
2. It is used to measure the weight of objects.
3. It is used to measure the temperature of liquids.

- (B) 1. b. thigh. 2. b. temperature.
3. c. copper. 4. c. 12
5. c. O_2

- ④ (A) 1. carbon dioxide.
2. medical thermometer.
3. Increases.
4. Medulla oblongata.
5. lifeless gas.

- (B) 1. Weight on Earth = Mass \times 10
= $6 \times 10 = 60$ Newton.
2. Weight on moon = weight on Earth $\times \frac{1}{6}$
= $60 \times \frac{1}{6} = 10$ Newton.

6 Menafia Governorate

- ① (A) 1. d. Spring. 2. d. mercury.
3. c. Copper. 4. d. knee.
5. d. Plastic.
6. a. Calcium carbonate.

- (B) 1. This causes osteoporosis and may cause death.
2. Train accidents will occur.

- ② (A) 1. Newton.
2. Oxy-acetylene flame.
3. Temperature. 4. Nitrogen.
5. Global warming.
6. Medulla oblongata.

- (B) 1. Its mass on the Earth = 30 kg.
2. Its weight on the Earth = Its Mass \times 10
= $30 \times 10 = 300$ Newton
3. Its weight on the moon
= Its weight on Earth $\times \frac{1}{6}$
= $300 \times \frac{1}{6} = 50$ Newton.

42

- ③ (A) 1. gray. 2. mercury.
3. Carbon dioxide. 4. cerebrum.
5. oxygen. 6. decreases

- (B) 1. Neuron. ② Cytoplasm.
① Axon.

- ④ (A) 1. heat conductors – heat insulators.
2. (-39°C) – (357°C)
3. pressure – cooling
4. 12 – 31
5. burning – oxidation.
6. spinal cord – keeping the balance of the body during movement.

- (B) 1. To prevent the leakage of heat.
2. Because it causes relative constancy of the volume of car tires when the temperature changes.

7 Gharbia Governorate

- ① (A) 1. 35 – 42
2. the brain – the spinal cord.
3. volume – temperature.
4. oxygen – carbon dioxide.
5. balance scale – spring scale.

- (B) 1. Because they are good conductors of heat.
2. Because nitrogen is an inactive element.
3. Due to removal of forests and burning large amount of fuel.

- ② (A) 1. Ozone gas.
2. Celsius thermometer.
3. Appendicular skeleton.
4. Heat energy.
5. Acetylene gas.

- (B) 1. Weight on Earth = mass \times 10
= $30 \times 10 = 300$ Newton.
2. Weight on moon = Weight on Earth $\times \frac{1}{6}$
= $300 \times \frac{1}{6} = 50$ Newton.
3. Its mass on the moon = 30 kg.

- ③ (A) 1. c. sleepless.
2. a. carbon dioxide.
3. c. 71 Newton.
4. b. gives limited extent to measure temperature.
5. a. magnesium oxide and coal.

Guide Answers of Final Exams

- (B) 1. It causes poisoning to the person as mercury is a toxic substance.
2. The withdrawal of your hand will occur quickly.
3. Train accidents will occur.

- ④ (A) 1. Cerebellum. 2. Nitrogen gas.
3. Iwo. 4. Iron.
5. calcium carbonate.

- (B) ① Cell body. ② Axon.
③ Axon terminals.

8 Dakahlia Governorate

- ① (A) 1. thermometer.
2. the brain – the spinal cord.
3. hydrogen peroxide.
4. 5 kg. 5. fractures

- (B) 1. It is used to measure the temperature of liquids.
2. It is used in refrigeration (cooling).
3. It removes oxygen gas from atmospheric air by combining with it.

- ② (A) 1. Mass.
2. Involuntary muscles.
3. Carbon dioxide.
4. Medulla oblongata.
5. Oxygen gas.

- (B) 1. Because it is good conductor of heat.
2. To prevent friction between bones (vertebrae) during movement.
3. Because it causes relative constancy of the volume of car tires when the temperature changes.

- ③ (A) 1. d. mercury. 2. d. spinal cord.
3. a. scarcely. 4. d. 1 Newton.
5. b. calcium carbonate.

- (B) 1. Nitrogen oxide will produce.
2. Mercury will return back quickly to the bulb and we can't read the measurement correctly.
3. The body can't move.

- ④ 1. (✓) 2. (x) 3. (x)
4. (✓) 5. (✓) 6. (x)
(B) 1. Stay away from addiction.
2. Doing physical exercises.

9 Ismailia Governorate

- ① (A) 1. b. 100 2. d. skull joints.
3. b. burning. 4. c. Copper.
5. c. nitrogen.

- (B) 1. The mass of rock = 300 gm
= $\frac{300}{1000} = 0.3$ kg.

2. The weight of the rock
= mass (kg) \times 10 = $0.3 \times 10 = 3$ Newton
3. By changing the place, the mass of the rock will not change while its weight will change.

- ② (A) 1. (x) 2. (✓) 3. (x)
4. (✓) 5. (x) 6. (x)

- (B) 1. Magnesium ribbon keeps burning for a short time producing magnesium oxide which is a white substance and carbon which is a black substance.
2. The withdrawal of your hand will occur quickly.

- ③ (A) 1. Involuntary muscles.
2. Heat insulators.
3. Oxy-acetylene flame.
4. The brain.

- (B) 1. It produces carbon dioxide during fermentation which makes bread porous and tasty.
2. It protect the Earth from harmful radiation that come from the Sun.

- (C) 1. Medical thermometer.
2. ① Capillary tube.
② Transparent thick glass tube.
③ Constriction.

- ④ (A) 1. balance – spring
2. green plants – photosynthesis.
3. energy – high.
4. tendons – cartilages
5. 12 pairs – 31 pairs

- (B) 1. To keep our bodies warm because woolen clothes are bad conductors of heat.
2. To protect them from rusting.
3. To keep the nervous system healthy.

43



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3 Part

10 Suez Governorate

- 1 (A) 1. good. 2. place. 3. energy.
4. 0.03% - CO₂
5. cerebellum - medulla oblongata.
6. 33

- 2 (A) 1. (x) 2. (x) 3. (x)
4. (x) 5. (✓) 6. (x)

- (B) 1. Because this increases the percentage of carbon dioxide gas.
2. Because aluminium is a good conductor of heat, while plastic is a bad conductor of heat.

- 3 (A) 1. a. oxygen. 2. b. 1 Newton.
3. c. 12 4. b. cerebellum.
5. b. oxygen and water.
6. b. O₂

- (B) The weight on the Earth = mass × 10
= 10 × 10 = 100 Newton

- 4 (A) 1. Medical thermometer.
2. ① Mercury bulb.
② Constriction.
③ Capillary tube.

- (B) 1. different rates.
2. Carbon dioxide.
3. three. 4. Tendons.

11 Port Said Governorate

- 1 (A) 1. weight - Newton.
2. bad - handles of cooking pots.
3. nitrogen - oxygen
4. 35 - 10 parts
5. Skull - backbone.
6. Carbon dioxide - calcium carbonate.

- (B) Medical thermometer only has a constriction to prevent mercury from going back quickly to the bulb, so we can read the measurement easily.

- 2 (A) 1. Mercury. 2. Ozone.
3. volume. 4. cerebrum.

- (B) 1. Weight on Earth = Mass × 10
300 = Mass × 10
Mass = $\frac{300}{10}$ = 30 kg.

44

2. Weight on Moon = $\frac{1}{6}$ × Weight on Earth
= $\frac{1}{6}$ × 300 = 50 Newton
- (C) 1. Due to the formation of ammonia gas which has a pungent smell.
2. To prevent friction between vertebrae (bones) during motion.

- 3 (A) 1. b. fertilizers. 2. a. decrease.
3. c. trunk.
4. a. heavier than air.

(B)

Points of comparison	Cranial nerves	Spinal nerves
The place where they emerge from :	They emerge from the brain.	They emerge from the spinal cord.
Their numbers :	12 pairs.	31 pairs.

- (C) 1. The mass of the cleansing wire will increase, because it combines with oxygen.
2. We can't hold the kettle, because copper is a good conductor of heat.

- 4 (A) 1. Carbon dioxide gas. 2. Temperature.
3. Joints. 4. Oxygen gas.

- (B) It is used to measure the mass of objects.

- (C) 1. ① Cell body. ② Nucleus.
③ Dendrites. ④ Axon.
2. neuron.

12 Damietta Governorate

- 1 (A) 1. Celsius thermometer - medical thermometer.
2. oxygen - hydrogen.
3. axial skeleton - appendicular skeleton.
4. balance scale - Newton.

- (B) 1. The knee joint ...
2. ... its weight on moon's surface is 10 Newton.
3. Copper conducts heat faster than aluminium and iron.
4. ... by absorbing the ultraviolet radiation ...

- (B) 1. spring scale - weight of objects.
2. ribcage (ribs) - protect the heart and the lungs.

Guide Answers of Final Exams

- (C) 1. It acts as a catalyst during preparation of oxygen.
2. It keeps the balance of the body during movement.

- 2 (A) 1. c. calcium hydroxide.
2. c. blinking when something gets close to the eye.
3. a. volume.
4. b. 100 gm.

- (B) 1. Because oxygen scarcely dissolves in water.
2. Because wood and plastic are bad conductors of heat.

(C)

Points of comparison	Immovable joints	Freely movable joints
Definition :	They are the joints that don't allow any movement.	They are the joints that allow movement in all directions.
Example :	Joints between the bones of the skull.	Shoulder joint

- 3 (A) 1. fissure - nerve fibres.
2. nitrogen gas - azote.
3. muscle. 4. 35 - 42 5. weight.

- (B) 1. mercury. 2. three.
3. Cartilages.
4. calcium carbonate.

- 4 (A) 1. b 2. c 3. a

- (B) 1. (✓) 2. (x) 3. (x)
(C) 1. Neuron. ② Axon.
2. ① Axon terminals.

14 Behira Governorate

- 1 (A) 1. hydrogen peroxide - manganese dioxide.
2. 33 - 31
3. Celsius thermometer - medical thermometer.
4. the brain - the skull.
5. 0°C - 100 °C

45

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3 Part

Points of comparison	Mass	Weight
Definition :	The amount of matter in an object.	The gravitational force by which a body is attracted to the Earth.
Effect of different places :	Constant.	Variable.
Direction :	It has no effect	Its effect is always towards the centre of the Earth.

- (B)
- It is a liquid metal that can be seen easily through the thermometer glass.
- Doing physical exercises.
 - Stay away from addiction.
 - Stay away from sources of pollution.
- ① Femur. ② Shaft bones. ③ Foot bones.
- 15 Fayoum Governorate**
- ① (A) 1. kilogram (or gram) – Newton.
2. the brain – skull.
3. green plants – photosynthesis.
- (B) 1. It protects the heart and the lungs.
2. It is used in welding and cutting metals.
- ② (A) 1. Spinal cord. 2. Nitrogen gas.
3. Temperature.
4. Carbon dioxide gas.
5. Tendons. 6. Heat insulators.
- (B) 1. It is used in welding and cutting metals.
2. It prevent mercury to return back quickly to the mercury bulb, so we can read the measurement easily.
- ③ (A) 1. b. carbon. 3. c. Copper.
2. a. nerve cell axon. 4. b. Nitrogen.
5. b. 100
- (B) 1. Because it gives relative constancy to the volume of car tires when the temperature changes.
2. To prevent bone diseases such as osteomalacia and rickets.
3. Due to the formation of calcium carbonate which is insoluble in water.
- ④ (A) 1. Carbon dioxide is produced during fermentation, so the bread becomes porous and tasty.
2. Protein substance that builds up the bodies of all living organisms is not formed.
3. The weight of the body will decrease.
- (B) 1. – It is good conductor of heat.
– It is a regular expanding material.
– It doesn't stick to the walls of the capillary tube.

Guide Answers of Final Exams

- ② (A) 1. Because it controls all the involuntary processes such as heartbeats.
2. Because yeast produces carbon dioxide during fermentation, that expands by heat making the bread porous and tasty.
3. Because these muscles work automatically and you can't control their movement.
4. Because it causes relative constancy of the volume of car tires when the temperature changes.
- ③ (A) 1. c. air. 2. a. 4 kg.
3. a. slightly movable.
4. a. – 39 : 357
- (B) 1. Reflex action. 2. Tendons.
3. Mercury. 4. Weight.
- ④ (A) ① Cerebrum. ② Cerebellum.
③ Medulla oblongata.
④ To keep the balance of the body during movement.
- (B)
- | Points of comparison | Oxidation | Burning |
|----------------------|---|--|
| 1. Definition : | It is a slow combination (union) between oxygen and element in the presence of moisture (water) | It is a rapid combination (union) between oxygen and element producing heat and light. |
| 2. Example : | Iron rusting | Burning a piece of cleansing wire |
- 17 El-Minia Governorate**
- ① 1. balance scale – Newton.
2. 78 % – 21 %
3. 31 pairs.
4. spring scale.
5. hydrogen peroxide – manganese dioxide.
- ② 1. Joints. 2. Oxygen gas.
3. Medical thermometer.
4. Mass.
- ③ (A) 1. A white substance will produce.
2. Limestone turns milky due to the formation of calcium carbonate which is insoluble in water.
- (B) 1. Because aluminium is good conductor of heat, while plastic and wood are bad conductors of heat.
2. Because it protects the Earth from harmful radiation coming from the Sun.
3. Because it controls all the involuntary processes such as heartbeats.
- ④ (A) 1. carbon dioxide.
2. calcium carbonate.
3. dilute hydrochloric acid.
- (B) 1. Weight on Earth = mass x 10
= 30 x 10 = 300 Newton
2. Weight on Moon = Weight on Earth x $\frac{1}{6}$
= 300 x $\frac{1}{6}$ = 50 Newton.
- (C) 1. (x) 2. (✓) 3. (✓)
- 18 Assiut Governorate**
- ① 1. Newton – kilogram (or gram).
2. Nitrogen – oxygen.
3. the brain – skull. 4. energy. 5. 12
- ② (A) 1. a. Earth. 2. b. iron.
3. c. all the previous.
4. c. carbon dioxide.
5. b. 100 Newton. 6. a. 21 %
- (B) 1. They allow the movement between bones.
2. It protects the Earth from harmful radiation that come from the Sun.
- ③ (A) 1. Carbon dioxide. 2. Tendons.
3. Mass.
4. Celsius thermometer.
- (B) 1. b 2. a 3. e 4. c
- ④ (A) ① White matter. ② Gray matter.
- (B) 1. Because aluminium allow the flow of heat through as it is a good conductor of heat.
2. Because it causes relative constancy of the volume of car tires when the temperature changes.



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3 Part

- (C) 1. Iron will combine with oxygen in the presence of water, so the iron nail will rust.
2. The mercury will return back quickly to the bulb before determining the temperature reading.

19 Solihaj Governorate

- 1 (A) 1. a. Elbow, 2. a. 50, 3. c. carbon, 4. d. plastic, 5. c. fertilizers.

- (B) 1. Iron will combine with oxygen in the presence of water, so iron will rust.
2. The nervous system will be exhausted as they lead to nervous tension and affect the heartbeats and sleeping periods.
3. Mercury will return back quickly to the mercury bulb and we can't read the temperature correctly.

- 2 (A) 1. Hydrogen peroxide, 3. Reflex action, 2. Spring scale, 4. Heat conductors, 5. Nitrogen gas.
(B) 1. - dilute hydrochloric acid, - calcium carbonate.
2. Carbon dioxide gas is collected by upward displacement of air because it is heavier than air and easily dissolves in water.

- 3 (A) 1. bone, 2. Nitrogen, 3. 31 - 12
4. measure the temperature of human body - measure the temperature of liquids.

- (B) 1. Weight on Earth = Mass \times 10
= 12 \times 10 = 120 Newton.
2. Weight on Moon = Weight on Earth $\times \frac{1}{6}$
= 120 $\times \frac{1}{6}$ = 20 Newton.

- 4 (A) 1. To protect the heart and the lungs.
2. Because it protects the Earth from harmful radiation coming from the Sun.
3. Because the gravity of a planet depends on its mass, so the weight of any object will change from a planet to another.
4. To prevent the leakage of heat as air is bad conductor of heat.

48

- (B) 1. blood vessels muscles, 2. oxygen, 3. Copper, 4. cerebrum.

20 Qena Governorate

- 1 (A) 1. hydrogen peroxide - manganese dioxide, 2. the place, 3. Celsius, 4. central nervous system - peripheral nervous system.

- (B) 1. It is used in welding and cutting metals.
2. They prevent friction between vertebrae during movement.

- 2 (A) 1. (x) 2. (x) 3. (✓)
4. (✓) 5. (✓)

- (B) 1. To prevent mercury from going back quickly to the mercury bulb, so we can read the temperature easily.
2. Because carbon dioxide doesn't burn and doesn't help in burning.
3. Because it controls all the involuntary processes such as heartbeats.

- 3 (A) 1. b. copper, 2. b. 100
3. c. 12 pairs, 4. c. nitrogen, 5. a. spring scale.

- (B) 1. Mass on the Moon = 30 kg.
2. Weight on Earth = Mass \times 10
= 30 \times 10 = 300 Newton.
3. Weight on Moon = $\frac{1}{6}$ \times Weight on Earth
= $\frac{1}{6}$ \times 300 = 50 Newton

- 4 (A) 1. Spinal cord, 2. Heat energy, 3. Carbon dioxide gas, 4. Heat conductors, 5. Mass.
(B) ① Femur, ② Shaft bones, ③ Foot bones.

21 Luxor Governorate

- 1 1. 35 - 42
2. Backbone - cartilages
3. gravity - weight
4. the brain - skull.

Guide Answers of Final Exams

- 2 (A) 1. Involuntary muscles, 2. Nitrogen, 3. Spinal cord, 4. Ozone gas, 5. Appendicular skeleton, 6. Mercury.
(B) 1. Because oxygen scarcely dissolves in water.
2. Because it controls the involuntary processes such as heartbeats.

- 3 (A) 1. (x) 2. (✓) 3. (x) 4. (x)
(B) 1. c. iron, 2. b. slightly movable, 3. a. fertilizers, 4. a. oxygen.

- 4 (A) 1. The mass on the moon's surface = 30 kg.
2. The weight on the Earth's surface = Its Mass \times 10 = 30 \times 10 = 300 Newton
(B) 1. carbon dioxide gas, 2. ① Dilute hydrochloric acid, ② Calcium carbonate, ③ Carbon dioxide gas

22 Aswan Governorate

- 1 (A) 1. 35 - 42
2. carbon dioxide - oxygen, 3. wood - plastic, 4. the skull - the ribcage - the backbone
(B) 1. It is used in welding and cutting metals
2. It prevent friction between bones during movement.

- 2 (A) 1. c. 100
2. a. carbon, 3. b. Copper, 4. c. gives limited extent to measure temperature, 5. d. spinal cord.
(B) 1. Because it protects the Earth from harmful radiation coming from the Sun.
2. Because it controls all the involuntary processes such as heartbeats.

- 3 (A) 1. Heat conductors, 2. Weight, 3. Tendons, 4. Nitrogen gas, 5. Reflex action.
(B) 1. Iron will combine with oxygen in the presence of water, so the iron nail will rust.
2. The nervous system will be exhausted.

- 4 1. (✓) 2. (x) 3. (✓)
4. (✓) 5. (x)
(B) 1. - calcium carbonate, - dilute hydrochloric acid.
2. It is used in making soft drinks.

23 New Valley Governorate

- 1 (A) 1. a body is attracted, 2. Oxygen, 3. Celsius, 4. Nitrogen.
(B) 1. It is used in cutting and welding metals.
2. It is used to measure the weight of objects.
3. It removes oxygen from atmospheric air by combining with it.
4. It protects the Earth from harmful radiation coming from the Sun.

- 2 (A) 1. c. shaft, 2. a. increases, 3. c. mercury, 4. b. 31 pairs.
(B) It causes : - nervous tension, - sleepless.

- 3 (A) 1. (✓) 2. (✓) 3. (x)
4. (✓) 5. (✓)
(B) 1. Limestone turbids due to the formation of calcium carbonate.
2. Train accidents will occur.
3. A white substance is produced which reacts with water forming ammonia gas.

49



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3

Part

Points of comparison	Voluntary muscles	Involuntary muscles
Definition :	They are the muscles that can move willingly and you can control its movement.	They are the muscles that can move automatically and you can't control or even aware of their movement.
Example :	- Face muscles.	- Blood vessels

(B) 1. Weight on Earth = Mass × 10
300 = Mass × 10
Mass = $\frac{300}{10}$ = 30 kg.

2. Weight on Moon = $\frac{1}{6}$ × Weight on Earth
= $\frac{1}{6}$ × 300 = 50 Newton

(C) 1. ① Transparent thick glass tube.

- ② Mercury bulb.
③ Capillary tube.
2. 1. measuring the temperature of human body.
2. 35 - 42

24 South Sinai Governorate

1 (A) 1. 35 - 42 2. oxygen.
3. 78 4. plastic - wood

(B) 1. To protect the heart and the lungs.
2. Because oxygen scarcely dissolves in water.

Points of comparison	Mass	Weight
Device :	Balance scale.	Spring scale.
Unit :	Kilogram (or gram).	Newton.

2 (A) 1. (x) ... faster than iron.

2. (✓)
3. (x) Nitrogen gas ...
4. (x) The mass is constant ...
(B) 1. They are used in making cooking pots.
2. They are used in making handles of cooking pots.

50

(C) 1. Celsius thermometer.
2. It is used to measure the temperature of liquids.
3. Mercury.

3 (A) 1. a. 2 kg. 2. c. oxygen. 3. b. glass.
4. d. carbon dioxide.

(B) 1. The withdrawal of your hand will occur.
2. The temperature of the Earth will increase and living organisms will suffocate.

(C) 1. They prevent friction between vertebrae (bones) during motion.
2. It is used in making fertilizers.

4 (A) 1. Weight.
2. Carbon dioxide gas.
3. Backbone. 4. Oxygen gas.
(B) 1. e 2. d 3. a 4. c

25 North Sinai Governorate

1 (A) 1. 33 2. the brain
3. Celsius thermometer.
4. The mass of body.
5. 78 6. oxygen.

(B) 1. Because carbon dioxide gas doesn't burn and doesn't help in burning.
2. Because aluminium allow the heat to flow through as it is a good conductor of heat.

2 (A) 1. Mass. 2. Ozone gas.
3. joints. 4. Spinal cord.
5. Nitrogen. 6. Carbon dioxide.
(B) 1. It is the degree of hotness or coldness of a body.
2. They are materials that don't let heat flow through.

3 (A) 1. b. oxygen. 2. b. thigh.
3. d. two cerebral hemispheres.
4. c. 100 5. b. fertilizers.
6. b. copper.
(B) 1. It is used to measure the weight of an object.
2. It protects the heart and the lungs.

Guide Answers of Final Exams

27 Marrouh Governorate

1 (A) 1. energy.
2. Kilogram (or gram) - Newton.
3. The brain.
4. 21 - 78

(B) 1. It protects the heart and the lungs.
2. It is used in welding and cutting metals.

2 (A) 1. b. copper. 2. a. 15 kg.
3. b. nitrogen. 4. b. Wood.

(B) 1. Because it causes relative constancy of the volume of car tires when the temperature changes.
2. Because it protects the Earth from harmful radiation coming from the Sun.
3. Because it is good conductor of heat and it is a regular expanding material.

3 (A) 1. Carbon dioxide.
2. Nitrogen gas. 3. Spinal cord.
4. Reflex action. 5. Heat conductors.
(B) 1. Weight on Earth = Mass × 10
190 = Mass × 10
Mass = $\frac{190}{10}$ = 19 kg.

4 (A) 1. (x) ... is 12 pairs.
2. (x) three oxygen atoms.
3. (x) ... from the hot object to the cold object.
4. (x) ... slightly movable joint.
(B) ① Dendrites. ② Axon.
③ Axon terminals. ④ neuron

51



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نقومك فى أى مذكرة عليها العلامة دي
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PART

3

Final Examinations



Some exams questions have been modified according to the ministry modifications for the first term 2019 - 2020



هذا العمل حصري على موقع ذاكرولي التعليمي ولا يسمح بنشره في أي مواقع أخرى
لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

Answer the following questions :

1. Complete the following statements :

1. The Celsius thermometer is used in measuring the temperature of , while the medical thermometer is used in measuring the temperature of
2. Mass is measured by , whereas weight is measured by
3. Central nervous system consists of and
4. Limewater turns milky in presence of due to the formation of which is insoluble in water.
5. The ribcage protects and
6. Oxygen gas represents of the volume of air , while represents 78 % of the volume of the atmosphere.

2. [A] Write the scientific term of the following statements :

1. The used liquid in thermometers. (.....)
2. The building unit of nervous system. (.....)
3. Materials that used in making cooking pots and kettles. (.....)
4. The joint which allows the movement in all directions. (.....)
5. The gas that doesn't burn but it helps in burning. (.....)
6. A substance that is formed when a magnesium ribbon is burnt in a cylinder containing oxygen gas. (.....)

[B] Choose the correct answer :

1. The heat energy can be used in all the following applications except
 - a. cooking.
 - b. heating water.
 - c. manufacture of glass.
 - d. making a chair.
2. gas is prepared by adding dilute hydrochloric acid to calcium carbonate.
 - a. Carbon dioxide
 - b. Nitrogen
 - c. Oxygen
 - d. All the previous
3. The mass of your school desk depends on
 - a. weight.
 - b. gravity.
 - c. amount of matter.
 - d. distance from planet.

Final Examinations

4. A Newton is the weight of a ball its mass is
- a. 80 grams. b. 8 kg. c. 8 grams. d. 100 grams.
5. gas is used with acetylene to weld metals.
- a. Carbon dioxide b. Nitrogen c. Oxygen d. All the previous
6. A rapid combination between oxygen and an element producing
- a. heat. b. light.
- c. (a) and (b). d. no correct answer.

3. [A] Give reasons for :

1. The presence of a constriction in the medical thermometer.
.....
.....
2. The cerebrum is a very important part of the brain.
.....
.....
3. Weight of an object on the Earth's surface is more than its weight in a balloon.
.....
.....
4. The handles of cooking pots are made of wood or plastic.
.....
.....

[B] Correct the underlined words in the following statements :

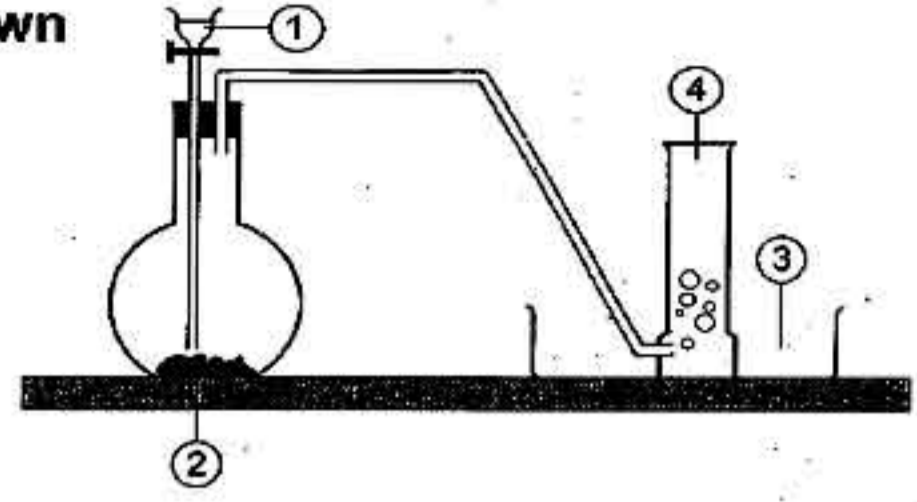
1. Ozone gas consists of 2 oxygen atoms. (.....)
2. Newton is the amount of matter in an object. (.....)
3. Light is a form of energy that transfers from the higher temperature object to the lower temperature object. (.....)
4. The cerebrum controls the involuntary movement. (.....)

4. [A] What happens when ... ?

1. You hold a piece of ice.
.....
.....
2. The percentage of CO₂ gas in air increases.
.....
.....

[B] Notice the following figure and write down the labels on the figure :

- ①
- ②
- ③
- ④



[C] Problem :

An object its mass on the Earth is 90 kg., calculate its weight on both surfaces of the Earth and the moon.

.....

.....

.....

.....

2

Cairo Governorate

Basateen and Dar El-Salam
Educational Administration

Answer the following questions :

1. [A] Complete the following sentences :

1. Nervous system consists of two main systems which are and
2. Handles of cooking utensils are made up of and
3. Weight of an object can be measured by using the
4. Oxygen combines with acetylene gas to produce

[B] Write one function of the following :

1. Ribcage :
2. Carbon dioxide gas :
3. Celsius thermometer :

2. [A] Write the scientific term of each of the following statements :

1. Mixture of gases surrounding the Earth. (.....)
2. Degree of hotness or coldness of an object. (.....)
3. Automatic body response towards different stimuli. (.....)
4. A gas its percentage in the atmospheric envelope represents 78 %. (.....)
5. Amount of matter in an object. (.....)
6. The building unit of nervous system. (.....)

Final Examinations

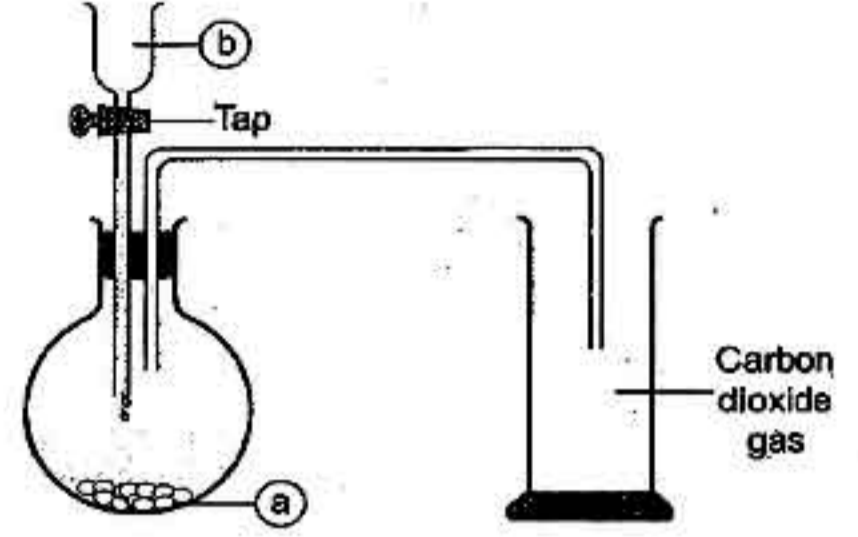
[B] Look at the opposite figure, and then answer :

1. Write what represents each label on the following figure :

(a)

(b)

2. The method of preparation of this gas is called



3. [A] What happens when ... ?

1. Two bodies have the same temperature touch each other .

.....
.....

2. Ozone layer is decayed.

.....
.....

3. The medulla oblongata is damaged.

.....
.....

[B] Choose the correct answer :

1. Melting point of ice is °C.

a. 100

b. zero

c. 42

d. 37

2. A gas turns limewater into turbid is gas.

a. oxygen

b. nitrogen

c. ozone

d. carbon dioxide

3. Peripheral nervous system consists of pairs of nerves.

a. 31

b. 12

c. 21

d. 43

4. 5000 grams are equal to kg.

a. 50

b. 500

c. 5

d. 0.5

4. [A] Give reasons for each of the following :

1. Presence of a constriction in medical thermometer.

.....
.....

2. Cerebrum is very important part of brain.

.....

[B] If you know that the weight of an object on the Earth surface equals 360 Newton, calculate :

1. Mass of the object on the Earth.

.....

2. Mass of the object on the moon's surface.

.....

3. Weight of the object on the moon's surface.

.....

Answer the following questions :

1. [A] Write the scientific term of the following statements :

1. The amount of matter in an object. (.....)
2. The building unit of the nervous system. (.....)
3. Location at which bones meet each other. (.....)
4. The speed automatic response of the body to external stimuli. (.....)

[B] What is the importance of the following :

1. Celsius thermometer.

.....

2. The ozone layer.

.....

2. [A] Choose the correct answer :

1. The gas that is mixed with oxygen for cutting and welding metals is
 a. nitrogen. b. hydrogen. c. acetylene. d. water vapour.

Final Examinations

2. The bone that connects the ribs from front is
- a. femur. b. skull. c. sternum. d. humerus.
3. The mass of half liter of distilled water equals
- a. 100 gm. b. 150 gm. c. 500 gm. d. 1000 gm.
4. A substance which is a good conductor of heat
- a. wool. b. plastic. c. iron. d. wood.

[B] Underline the unsuitable word in the following and mention the reason :

1. Shoulder joint - thigh joint - wrist joint - elbow joint.
.....
2. Two cerebral hemispheres - spinal cord - medulla oblongata - cerebellum.
.....

3. [A] Complete the following statements :

1. The scale of the medical thermometer starts from °C to °C.
2. pairs of nerves arise from the brain, while pairs of nerves arise from the spinal cord.
3. The weight of an object depends on
4. The fastest metal in conducting heat is

[B] Give reasons for the following :

1. Carbon dioxide gas is collected by upward displacement of air and isn't collected by displacement of water.
.....
2. Mercury is used in making thermometers.
.....

4. [A] Correct the underlined words in the following statements :

1. Hydrogen peroxide is used as a catalyst in preparing oxygen in the lab. (.....)
2. The occurrence of the fermentation process in the dough nitrogen gas to release. (.....)
3. Vinegar is used in sterilizing the medical thermometer before usage. (.....)
4. The white matter in the spinal cord has the shape of letter "H". (.....)

[B] If the weight of a person is 600 Newton on the Earth's surface, calculate :

1. Its mass on the Earth.

.....

2. Its weight on the moon.

.....

3. Its mass on the moon.

.....

4 Cairo Governorate

Nozha Language Schools

Answer the following questions :

1. [A] Put (✓) or (x) in front of the following :

1. The liquids expand by heating and contract by cooling. ()
2. Hydrogen peroxide dissociates in the presence of a catalyst into nitrogen gas and oxygen gas. ()
3. As the mass of the planet increases, its gravitational force decreases. ()
4. Nitrogen gas represents 0.03 % of the air volume. ()
5. Copper conducts heat faster than aluminium. ()
6. The Earth is surrounded by a mixture of gases. ()

[B] Give reasons for :

1. There is a constriction in the medical thermometer.

.....

2. Ozone gas is important for the life of living organisms.

.....

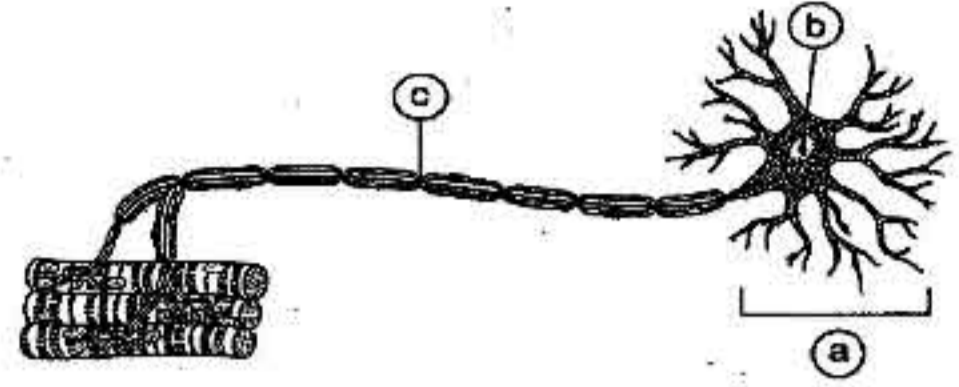
Final Examinations

[C] Look at the opposite figure, and then answer :

1. This is the cell.

2. Write the labels :

- (a)
- (b)
- (c)



2. [A] Match from column (B) what is suitable from column (A) :

(A)	(B)
1. Spring scale	a. used to measure the mass.
2. Clinical thermometer	b. used in making heavy blankets and woolen clothes.
3. Conductors	c. used to measure the body temperature.
4. One-arm scale	d. used to measure the weight.
5. Insulators	e. used to make cooking pots and kettles.

1. 2. 3. 4. 5.

[B] Correct the underlined words :

1. The melting point of ice is -39°C. (.....)
2. Oxidation is a rapid union between oxygen gas and an element producing heat and light. (.....)
3. Cerebrum lies at the back area of the brain and maintains the balance of the body. (.....)
4. Carbon dioxide gas is collected by downward displacement of water. (.....)

[C] If the object's mass = 30 kg. on the Earth's surface. Calculate :

1. Its weight on the Earth.

.....

2. Its weight on the moon.

.....

3. [A] Complete the following statements :

1. Carbon dioxide gas molecule consists of carbon atom and oxygen atoms.

2. The heat transfers from the object of temperature to the object of temperature.
3. is the force by which a body is attracted to the Earth.
4. The axial skeleton consists of, and ribcage.
5. Legumes such as clover and peas benefit from gas in the formation of proteins.

[B] Look at the opposite figure, and then answer :

1. This figure represents thermometer.
2. Label the figure :
 - ①
 - ②
 - ③



4. [A] Write the scientific term :

1. The degree of hotness or coldness of a body. (.....)
2. The product from the combination of magnesium with oxygen. (.....)
3. It consists of a gray matter in the form of letter "H" surrounded by a white matter. (.....)
4. A gas that prepared by adding dilute hydrochloric acid to calcium carbonate. (.....)
5. The measuring unit of mass which almost equals to a mass of one liter of distilled water. (.....)

[B] Choose the correct answer :

1. are the joints that allow the movement in one direction
 - a. Freely movable joints
 - b. Immovable joints
 - c. Slightly movable joints
2. Oxygen gas
 - a. doesn't burn and doesn't help in burning.
 - b. burns and helps in burning.
 - c. doesn't burn but helps in burning.
3. The mass of a desk depends on the
 - a. weight.
 - b. amount of matter.
 - c. distance from the planet center.

2. [A] Complete the following statements :

1. Magnesium reacts with carbon dioxide forming a white powder of and a black powder of
2. The graduation of the clinical thermometer is between and
3. The measuring unit of weight is, while the measuring unit of mass is

[B] Write the function of :

Spring scale.

.....

3. [A] Put (✓) in front of the right statements and (✗) in front of wrong one :

1. All materials are good conductors of heat. ()
2. The Earth gravitational force decreases as the distance between an object and the center of the planet increases. ()
3. Mass differs according to the planet where the object exists. ()
4. The white matter of the spinal cord has the shape of letter "H". ()
5. The cerebellum contains centers of thinking and memory. ()
6. The Celsius thermometer is used in measuring the human body temperature. ()

[B] Give reasons for :

1. There is a constriction in the medical thermometer.
-
-

2. Clear limewater becomes turbid when carbon dioxide passes into it.
-
-

3. Damage of the medulla oblongata causes death.
-
-

4. [A] Choose the correct answer :

1. Among the freely movable joints are joints.

a. knee

b. thigh

c. elbow

d. skull

Final Examinations

2. All the following are from the constituents of the human skeletal system except
- a. joints. b. backbone. c. spinal cord. d. ribcage.
3. Photosynthesis process in the plant depends on the presence of
- a. nitrogen. b. oxygen. c. carbon dioxide. d. ozone.
4. Humerus bone is one of the bones of
- a. lower limbs. b. upper limbs. c. backbone. d. axial skeleton.
5. Your weight on the moon surface is 50 Newton, so your weight on the Earth surface is Newton.
- a. 300 b. 500 c. 10 d. 100

[B] What will happen when :

The overuse of soft drinks.

.....

.....

[C] Correct the underlined word :

1. Water is a regular expanding material. (.....)
2. Human ribcage composed of 31 pairs of ribs. (.....)

6

Cairo Governorate

Saint Mary's School

Answer the following questions :

1. [A] Choose the correct answer :

1. is the gravitational force by which a body is attracted to the Earth.
- a. Weight b. Mass c. Volume d. Density
2. Cooking utensils are provided with handles of
- a. copper. b. plastic. c. iron. d. aluminium.
3. Every degree in the medical thermometer is divided into parts.
- a. 3 b. 5 c. 6 d. 10
4. Oxygen is than air.
- a. heavier b. lighter c. colder d. hotter



5. A gas which turns limewater into turbid is gas.
 a. oxygen b. nitrogen c. carbon dioxide d. ozone
6. The axon is covered with a fatty substance called
 a. gray matter. b. synapse. c. myelin sheath. d. dendrites.

[B] Classify each of the following joints according to their types :

1. Skull joints.

2. Knee joint.

3. Wrist joint.

[C] Mention one importance of :

1. Cerebellum.

2. Celsius thermometer.

3. Yeast.

2. [A] Write the scientific term of each of the following statements :

1. An organ contains the centers of thinking and memory. (.....)
2. A gas is called azote which means lifeless gas. (.....)
3. The product of combination of oxygen with lighted magnesium. (.....)
4. The liquid used in sterilizing the medical thermometer. (.....)
5. The measuring unit of weight. (.....)
6. Materials that do not let heat flow through. (.....)

[B] What happens when ... ?

1. Addition of dilute hydrochloric acid to over calcium carbonate.

2. Absence of a constriction above the mercury bulb of the medical thermometer.

3. Drinking big quantities of soft drinks.

Final Examinations

3. [A] Complete the following statements :

1. The scale of medical thermometer starts from 35°C to
2. The objects seem weightless in the space due to the absence of
3. The dendrites are connected to neighbouring neurons composing the
4. Oxygen combines with acetylene gas to produce

[B] Correct the underlined words in the following statements :

1. Water is composed of oxygen and nitrogen. (.....)
2. The normal temperature of the healthy person is 35°C . (.....)
3. The effect of weight is always directed towards the surface of the Earth. (.....)
4. The automatic response of the body to the external stimuli is known as the voluntary response. (.....)

4. [A] Put (✓) or (✗) in front of the following :

1. Backbone consists of 31 pairs of ribs. ()
2. Dendrites are branches extend from the neuron's cell body. ()
3. Gasoline is the material that is used in making cigarettes. ()
4. Oxygen cylinders are used during diving and climbing mountains. ()
5. The different metals transfer heat at the same rate. ()

[B] Give reasons for :

1. The mass of a body on the Earth's surface equals the mass of the same body on the moon's surface.
.....
.....
2. Although oxygen is consumed during respiration, its percentage remains stable in the atmosphere.
.....
.....

[C] If an object's mass = 12 kg. on the Earth, calculate :

Its weight on the moon.
.....
.....

3

7

Giza Governorate

Child Home Language School

Answer the following questions :

1. Complete the following statements :

1. Mass is measured by, while weight is measured by
2. The clinical thermometer is scaled from to
3. Exhaled air contains gas which turbid
4. The nervous system is composed of and
5. The catalyst remains without change in its and
6. The nitrogen gas molecule consists of atoms.
7. The number of cranial nerves is

2. [A] Give reasons for :

1. The force of the moon's gravity is less than that of the Earth's gravity.
.....
.....
2. Leaving spaces between the railway bars.
.....
.....
3. Percentage of oxygen gas remains constant in air.
.....
.....
4. Yeast is added to dough during making bread.
.....
.....
5. We must avoid using tranquilizers and stimulants.
.....
.....
6. Nitrogen gas is called "azote" which means lifeless.
.....
.....

[B] Write one function of :

1. Dendrites of the nerve cell.
.....

108



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Final Examinations

2. Skull.

.....

3. Ribcage.

.....

4. Oxy-acetylene flame.

.....

5. Medulla oblongata.

.....

6. Heat insulators.

.....

3. [A] What happens if ... ?

1. The distance between the body and the center of the Earth increases.

.....

2. There is no constriction above mercury bulb in clinical thermometer.

.....

3. Dilute hydrochloric acid is dropped over calcium carbonate.

.....

4. Nodular bacteria are removed from plants roots.

.....

5. An iron nail wetted by water is exposed for many days to humid air.

.....

6. Hydrogen peroxide is dropped over manganese dioxide.

.....

[B] Label the following figure :

①

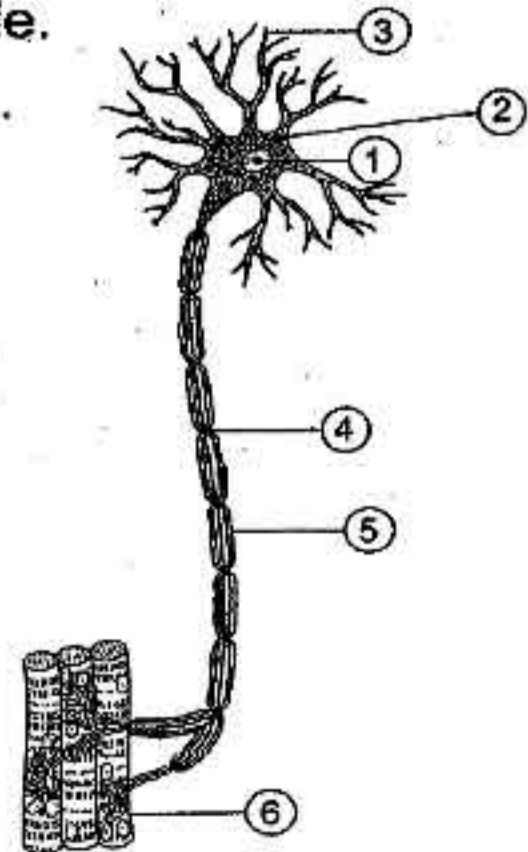
②

③

④

⑤

⑥



4. [A] Write the scientific term :

1. The amount of matter in an object. (.....)
2. Group of joints that allow movement in one direction. (.....)
3. The fast reaction of an element with oxygen which generate heat. (.....)
4. An organ responsible for reflex action. (.....)
5. A liquid used to sterilize thermometer. (.....)

[B] If the mass of a body on the Earth is 18 kg. Calculate :

1. Its mass on the moon.
.....
2. Its weight on the Earth.
.....
3. Its weight on the moon.
.....

[C] What is meant by ... ?

1. Oxidation.
.....
2. Reflex action.
.....
3. The atmosphere.
.....

Answer the following questions :

1. [A] Write the scientific term for each of the following :

1. A part of the nervous system is responsible for reflex action. (.....)
2. The amount of matter that the body contains. (.....)
3. The substances that allow heat to pass through. (.....)
4. A flame is used in cutting and welding metals. (.....)

[B] Mention one function :

The ozone layer.
.....

Final Examinations

2. [A] Complete the following statements :

1. The human skeletal system consists of and
2. Oxygen is consumed in and
3. The mass is measured in unit , but the weight is measured in unit.
4. The number of spinal nerves in human is and the number of cranial nerves is

[B] What happens when :

An iron nail moistened with water is exposed to a humid atmosphere for several days.

.....

3. [A] Choose the correct answer :

1. We use to make the electric iron handle.
 - a. iron
 - b. copper
 - c. plastic
 - d. aluminium
2. The carbon dioxide is used in the industry of
 - a. steel.
 - b. gun powder.
 - c. fertilizers.
 - d. soft drinks.
3. If the weight of a body is 20 Newton its mass equals
 - a. 2 kg.
 - b. 20 kg.
 - c. 200 kg.
 - d. 2000 kg.
4. All the following are from the components of central nervous system except
 - a. spinal nerve.
 - b. two cerebral hemispheres.
 - c. spinal cord.
 - d. medulla oblongata.

[B] Correct the underlined words :

1. Nitrogen doesn't burn , but it helps in burning. (.....)
2. The part which is responsible for keeping human body balance is spinal cord. (.....)

4. [A] Give reasons for each of the following :

1. There is a constriction in the medical thermometer.
-

2. The ribcage surrounds both the heart and the lungs.
-

3

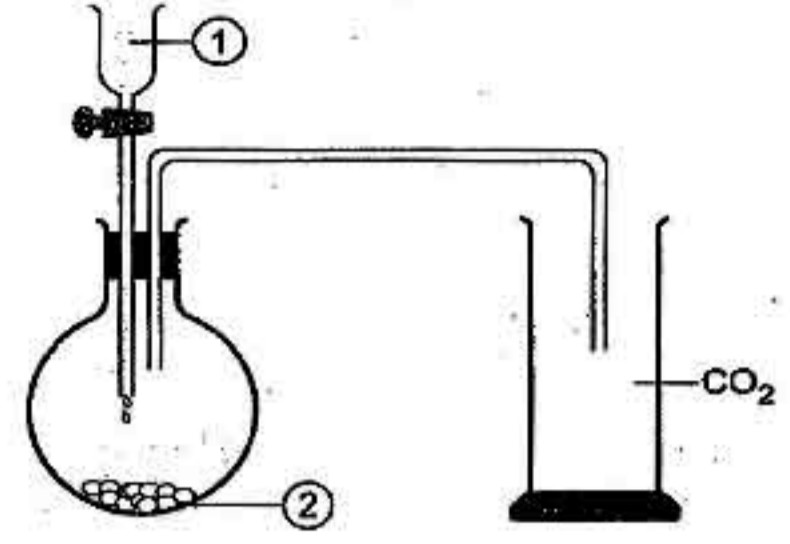
[B] Look at the opposite figure, then answer :

1. Label the figure :

①

②

2. Carbon dioxide is collected by upward displacement of air. Why ?



9

Giza Governorate

Dar El-Hanan Language School

Answer the following questions :

1. [A] Complete the following statements :

- The main idea of making thermometers is the changing the of a liquid by changing the
- The percentage of carbon dioxide gas in the atmospheric air is and has the symbol of.....

[B] What's the importance of ... ?

1. Spring scale.

2. Skull.

2. [A] Write the scientific term of each of the following :

- The measuring unit of mass which is equal to the mass of one liter of distilled water at normal temperature. (.....)
- The liquid that is used in making the medical and the Celsius thermometers. (.....)
- A gas that its molecule is composed of three oxygen atoms. (.....)
- The building unit of the nervous system. (.....)

[B] Problem :

An object's mass = 30 kg. on the Earth's surface , calculate its weight on the Earth's surface.

112



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Final Examinations

3. [A] Put (✓) in front of the right statement and (✗) in front of the false one and correct the wrong ones :

- Oxygen gas is prepared from hydrogen peroxide dissociates in the presence of carbon dioxide gas. ()
.....
- Oxygen combines with a lighted magnesium ribbon forming a white substance. ()
.....
- The axon of the nerve cell is surrounded by a gelatinous layer . ()
.....
- The bones of the lower limbs consist of humerus bone, forearm bones and hand bones . ()
.....

[B] Give reasons for the following :

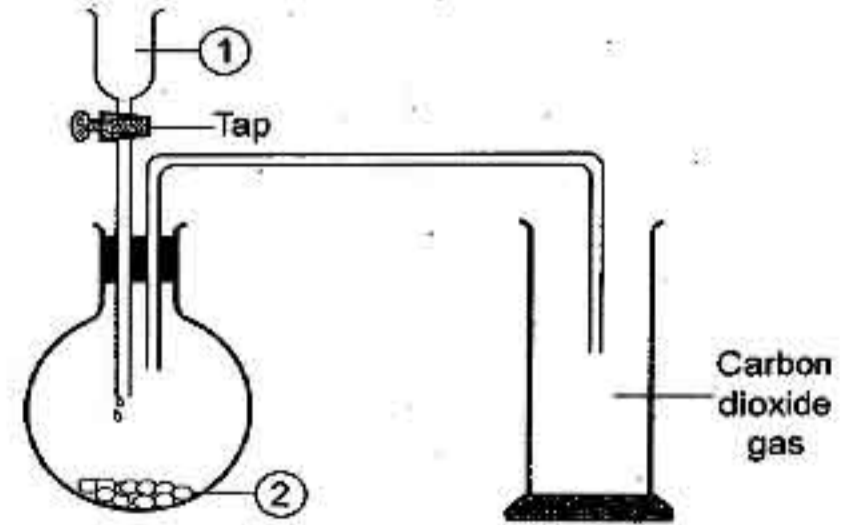
- The handles of cooking utensils are made of plastic or wood.
.....
- Clear limewater gets turbid if carbon dioxide gas passes through it.
.....

4. [A] Classify each of the following joints according to their types :

- Skull joints.
.....
- Knee joint.
.....
- Shoulder joint.
.....

[B] Look at the following figure, then answer :

- Liquid ① :
- Substance ② :
- Carbon dioxide is collected by upward displacement of air. Why ?
.....
.....
.....



Answer the following questions :

1. [A] Complete the following sentences :

1. The controls the reflex action.
2. Carbon dioxide gas is turned into liquid by and
3. From slightly movable joints
4. The dendrites are connected to neighbouring neurons composing the
5. Oxygen gas is produced through process and consumed in process.
6. An object's weight is affected by the distance being away from the of the planet.

[B] Give reasons for :

1. Carbon dioxide is collected by upward displacement of air.
.....
.....
2. Damage of medulla oblongata causes death.
.....
.....

2. [A] Choose the correct answer :

1. Mercury remains in liquid state between °C.
a. (39 : 357) b. (39 : - 357) c. (- 39 : 357) d. (0 : 100)
2. Newton is almost equal to the weight of an object whose mass is grams.
a. 10 b. 100 c. 1000 d. 0.1
3. The centers of thinking and memory lie in
a. medulla oblongata. b. spinal cord.
c. cerebellum. d. two cerebral hemispheres.
4. The best metal in conducting heat is
a. aluminium. b. copper. c. iron. d. mercury.

Final Examinations

[B] If the object's weight on the Earth's surface is 30 Newton. Calculate :

1. Its mass on the Earth.

.....

2. Its weight on the moon.

.....

3. [A] Write the scientific term of the following :

1. A mixture of different gases that surrounds the Earth.

(.....)

2. It's the main control center in the human body.

(.....)

3. An indicator helps us to express the state of the body from the point of hotness and coldness.

(.....)

4. A gas molecule consists of three oxygen atoms.

(.....)

[B] What happens if ... ?

1. An iron nail wetted by water is exposed several days to humid air.

.....

2. Touching a very hot surface.

.....

4. [A] Put (✓) or (✗) and correct the wrong one :

1. The number of cranial nerves in man is 31 pairs.

()

.....

2. The main idea to make a thermometer is changing mass of the mercury according to the change in the temperature.

()

.....

[B] Mention one importance for :

1. Spring scale.

.....

2. Cerebellum.

.....

3. Oxy-acetylene flame.

.....



[C] Look at the figure , then answer the questions :

1. Label the figure :

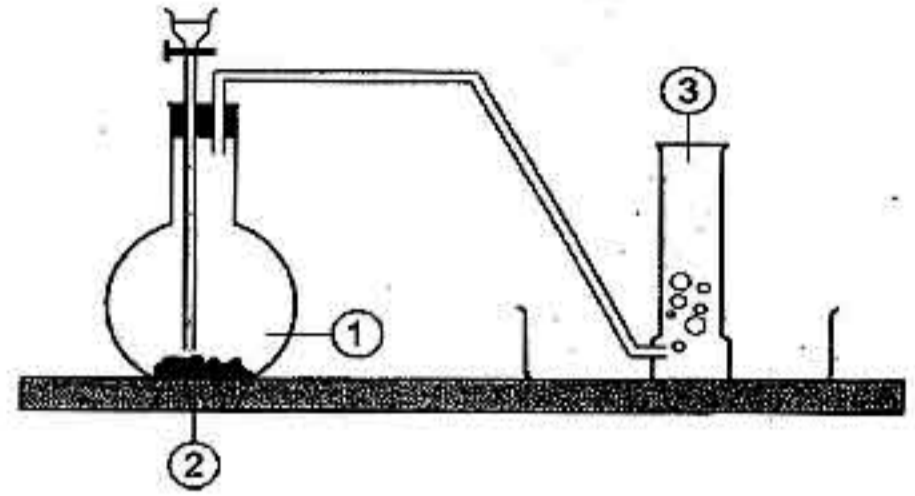
- ①
- ②
- ③

2. What's the importance of number ② ?

.....

.....

.....



11 Alexandria Governorate

South Alex. Educational Zone

Answer the following questions :

1. [A] Complete the following statements :

- Mass is measured by , where weight is measured by
- The axial skeleton in the man consists of , and
- The heat is a form of the forms of
- The oxygen gas of the atmosphere is consumed during and

[B] Compare between :

Points of comparison	Celsius thermometer	Medical thermometer
1. Usage :
2. Range of scale :

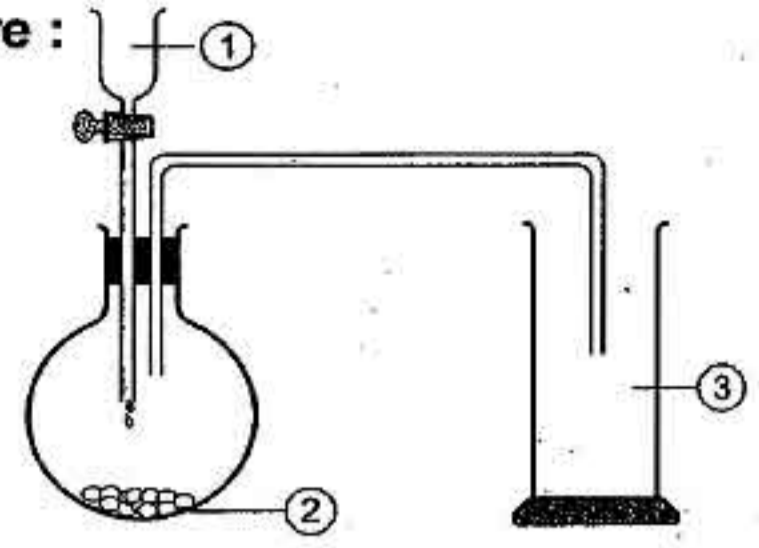
2. [A] Write the scientific term :

- A bony case that contains brain inside. (.....)
- A gas used in its preparation hydrogen peroxide. (.....)
- The gas that turns limewater into turbid. (.....)
- The flame which is used in cutting and welding metals. (.....)
- The product substance from the combination of magnesium and oxygen. (.....)
- A gas molecule consists of three atoms of oxygen. (.....)

Final Examinations

[B] Look at the opposite figure , then label the figure :

- ①
- ②
- ③



3. [A] Choose the correct answer :

- The gray matter in the spinal cord , its shape like letter.
 - A
 - H
 - F
- Nitrogen molecule consists of nitrogen atoms.
 - four
 - three
 - two
- The ribcage in the man consists of pairs of ribs.
 - 11
 - 10
 - 12
- Backbone consists of vertebrae.
 - 32
 - 33
 - 23
- Which of the following is from slightly movable joints ?
 - Femur.
 - Wrist.
 - Knee.
- A catalyst used in preparation of oxygen gas in laboratory is
 - sodium carbonate.
 - copper oxide.
 - manganese dioxide.

[B] If an object's mass = 30 kg. on the Earth. Calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

4. [A] Join from column (A), what is suitable from column (B) :

(A)	(B)
1. Alcohol	a. protects the Earth from harmful radiations.
2. Cranial nerves	b. is a liquid used in sterilizing of thermometers.
3. Plastic	c. are 12 pairs of nerves.
4. Ozone	d. are 31 pairs of nerves.
	e. is a bad conductor of heat.

1.

2.

3.

4.

[B] Give reasons for :

1. The yeast is added to dough on making bread.

.....

2. The heart and lungs are surrounded by ribcage.

.....

[C] Cross out the odd word :

1. Humerus bone – Shaft bones – Forearm bones – Hand bones. (.....)

2. Two lower limbs – Skull – Backbone – Ribcage. (.....)

12 Alexandria Governorate

El-Gomrok Educational Zone

Answer the following questions :

1. [A] Complete the following statements :

1. Oxygen gas is prepared by decomposing in the presence of as a catalyst.

2. The is the site of two bones meeting.

3. Liquids by heating and by cooling.

4. The measurement unit of mass is , while measurement unit of weight is

[B] Give reason for each of the following :

1. Mercury is used in thermometers (two point).

.....
.....

2. The damage of the medulla oblongata causes death.

.....
.....

2. [A] Choose the correct answer :

1. The controls the reflex actions.

a. spinal cord

b. cerebellum

c. cerebrum

2. Newton is equal to the weight of body, its mass is

a. 10 gm.

b. 100 gm.

c. 1000 gm.

Final Examinations

3. Carbon dioxide is collected by displacing
- a. air downward. b. air upward. c. water downward.
4. The knee and elbow joints are
- a. immovable. b. slightly movable. c. free movable.

[B] What is the importance of each of the following ... ?

1. A constriction in the medical thermometer.
-

2. Cartilages.
-

3. [A] Write the scientific term :

1. A flame whose temperature reaches to 3500°C . (.....)
2. The fastest metal in conducting heat. (.....)
3. A bony case that contains brain inside. (.....)

[B] Problem :

If an object's mass on the Earth = 30 kg. Calculate :

1. Its mass on the moon.
-

2. Its weight on the Earth.
-

3. Its weight on the moon.
-

4. [A] Correct the underline words :

1. We should use water to sterilize the medical thermometer. (.....)
2. The cerebrum is responsible for the body's balance. (.....)

[B] Compare between the properties of :

Points of comparison	Oxygen gas	Carbon dioxide gas
1. Reaction with magnesium :
2. Dissolving in water :

Answer the following questions :

1. [A] Complete the following statements :

1. Materials are classified according to conducting heat into conductors and conductors.
2. The measuring unit of weight is , while the measuring unit of mass is
3. The scale of medical thermometer starts from °C and ends at °C.
4. The central nerves system is composed of and

[B] Give reasons for each of the following :

1. Carbon dioxide gas is used in extinguishing fires.

.....
.....

2. Ozone gas is very important in nature.

.....
.....

2. [A] Write the scientific term for each of the following :

1. The amount of matter in an object. (.....)
2. A bony box that contains cavities for eyes, ears and nose. (.....)
3. A gas that is the most important part in protein. (.....)
4. A flame is used in cutting and welding metals. (.....)

[B] Mention one function for each of the following :

1. Celsius thermometer.

.....

2. The ribcage.

.....

3. [A] Put (✓) or (✗) in front of each of the following :

1. Cooking pots are made up of plastic. ()
2. Humerus bone and forearm bones are from the parts of the lower limbs. ()
3. The cerebellum is responsible for maintaining the body balance during movement. ()

Final Examinations

[B] Correct the underlined words :

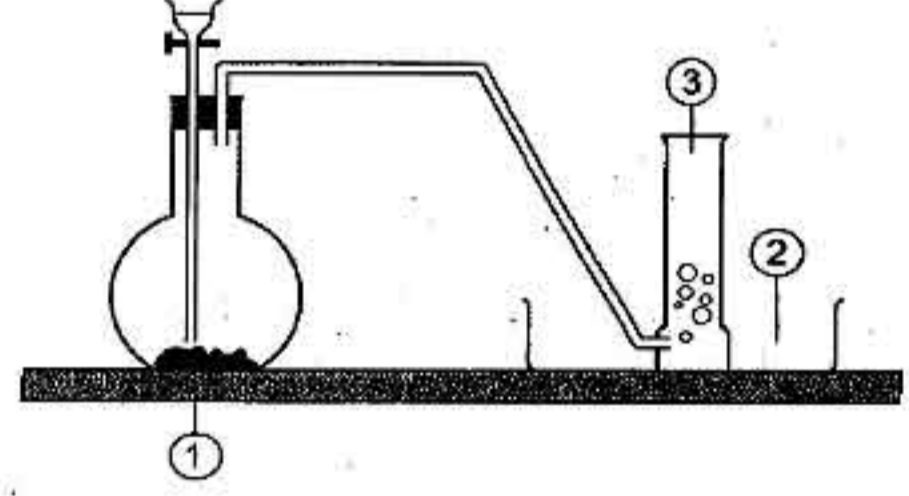
- Ozone is composed of two oxygen atoms. (.....)
- Carbon dioxide gas is prepared in laboratory from reaction between dilute hydrochloric acid and copper sulphate. (.....)
- The liquid used in the medical thermometer is alcohol. (.....)

4. [A] Choose the right answer from the following :

- The myelin sheath covers
a. the axon on the nerve cell. b. cerebrum. c. medulla oblongate.
- The weight of an object on the Earth's surface is 6 Newton, so its weight on the moon's surface is Newton.
a. 1 b. 6 c. 10
- The measuring device of the mass is
a. spring scale. b. thermometer. c. sensitive balance.

[B] Look at the opposite figure, then complete the labels :

-
-
-



14 Kalyoubia Governorate

Memphis language school

Answer the following questions :

1. [A] Complete the following statements :

- The force by which the body is attracted to the Earth is called
- Handles of cooking pots are made of
- The number of spinal nerves is and number of cranial nerves is

[B] Mention one function of each of the following :

- Oxy-acetylene flame.
.....
- Cerebellum.
.....

[C] What is meant by :

1. Newton.

.....

2. Temperature.

.....

2. [A] Write the scientific term of each of the following :

1. Materials that don't let heat to pass through. (.....)

2. Automatic response of the body to different stimuli. (.....)

3. The part of the brain that is responsible for regulating the heartbeats. (.....)

4. A chemical substance that increases the speed of the reaction without changing in its quantity and structure. (.....)

5. A device used to measure the temperature of liquids. (.....)

[B] Give reasons for :

1. There is a constriction in the medical thermometer.

.....

2. Clear limewater becomes turbid when carbon dioxide passes.

.....

3. [A] Put (✓) or (✗) and correct the wrong one :

1. The mass of the body changes as its location changes. ()

.....

2. Woolen clothes are good conductors of heat. ()

.....

3. In the Celsius thermometer there is a constriction in the capillary tube. ()

.....

4. Shoulder joint is an immovable joint. ()

.....

Final Examinations

5. Copper is a good conductor of heat. ()

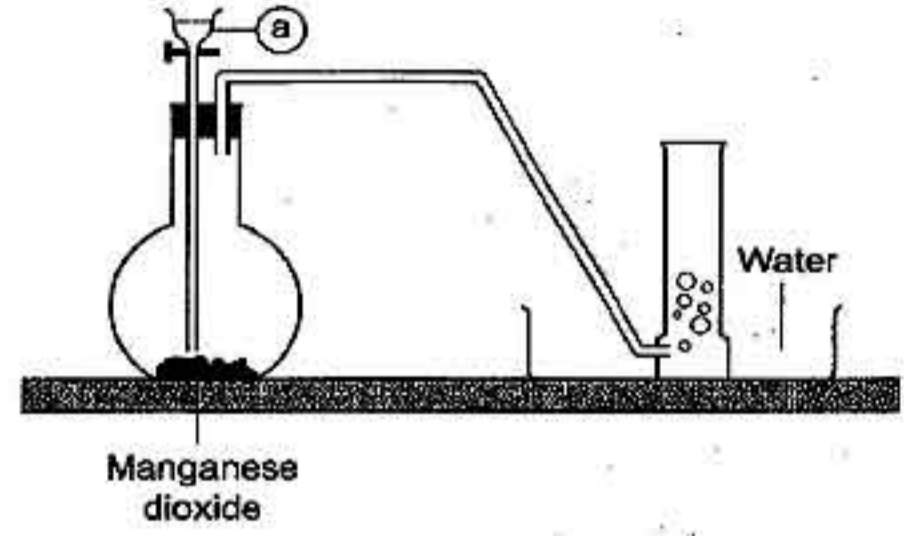
.....

6. Ozone gas is composed of four atoms of oxygen. ()

.....

[B] Look at the opposite figure, then answer :

1. This apparatus represents the preparation of gas.
2. Solution (a) is
3. The produced gas is collected by downward displacement of water because it



.....

[C] If the mass of an object on the Earth is equal to 60 kg., calculate :

1. Its weight on the Earth's surface.
2. Its weight on the moon's surface.
3. Its mass on the moon's surface.

.....

.....

.....

4. [A] What happens when ... ?

1. Over intaking of the stimulating substance such as coffee.
2. Increasing the percentage of carbon dioxide gas in the atmosphere.

.....

.....

[B] Give one example of each of the following :

1. An immovable joint.
2. Measuring device of small masses.

.....

.....

Answer the following questions :

1. [A] Complete the following statements :

1. The weight of anybody when the distance between the body and the center of the planet as the gravitational force decreases.
2. We can use thermometer to measure the temperature of different liquids, whereas thermometer is used in measuring the temperature of the human body.
3. Oxygen gas is prepared by the decomposition of in the presence of as a catalyst.
4. The neuron consists of two main parts and

[B] Give reasons for each of the following :

1. When you burn a ball of cleansing wire strongly, its mass increases.
.....
.....
2. The withdrawal of the hand quickly when it suddenly touches a hot surface.
.....
.....

2. [A] Write the scientific term for each of the following :

1. The materials that let heat flow through. (.....)
2. A chemical substance that remains without any change in its quantity and structure during the chemical reaction. (.....)
3. The main control center in the human body. (.....)
4. The system that consists of 43 pairs of nerves. (.....)

[B] An object whose mass on the Earth equals 12 kg. Calculate :

1. Its weight on the Earth.
.....
.....
2. Its weight on the moon.
.....
.....

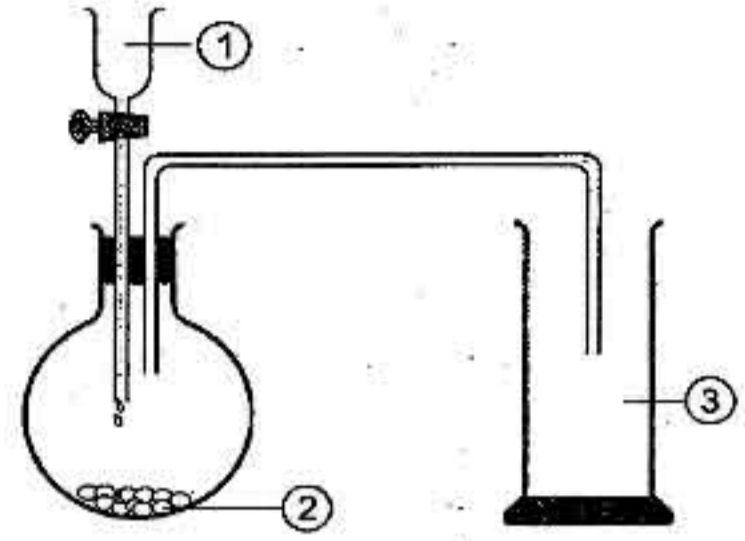
Final Examinations

3. [A] Correct the underlined words :

1. The main idea to make a thermometer is changing the mass of liquid according to the temperature. (.....)
2. Ozone molecule consists of four atoms. (.....)
3. When a lighted magnesium ribbon is inserted in a cylinder filled with oxygen a black substance deposits on the wall of the cylinder. (.....)
4. Cerebellum connects the brain with spinal cord. (.....)

[B] Look at the opposite figure, then answer :

1. This apparatus is used for the preparation of
2. Write down the labels on the figure :
 - Liquid ① is
 - Substance ② is
 - Gas ③ is



4. [A] Choose the correct answer :

1. The device of measuring weight is
 - a. sensitive scale.
 - b. spring scale.
 - c. digital scale.
 - d. double pans scale.
2. The best metal in conducting heat is
 - a. aluminium.
 - b. iron.
 - c. copper.
 - d. mercury.
3. The gas which turns limewater turbid is gas.
 - a. oxygen
 - b. nitrogen
 - c. carbon dioxide
 - d. ozone
4. The centers of thinking and memory lie in
 - a. medulla oblongata.
 - b. spinal cord.
 - c. cerebellum.
 - d. two cerebral hemispheres.

[B] What would happen in the following cases :

1. Drinking big quantities of soft drinks.

.....

.....

2. The cerebellum is shocked hardly.

.....

.....

Answer the following questions :

1. [A] Choose the correct answer :

- The device of measuring weight is
 - one-arm scale.
 - two-arms scale.
 - digital scale.
 - spring scale.
- Reflex action takes place through the
 - medulla oblongata.
 - spinal cord.
 - cerebellum.
 - cerebrum.
- Cooking utensils are provided with handles of
 - copper.
 - wood.
 - iron.
 - aluminium.
- Newton equals the weight of an object whose mass is kg.
 - 100
 - 10
 - 1
 - 0.1
- The centers of thinking and memory lie in
 - medulla oblongata.
 - spinal cord.
 - cerebrum.
 - cerebellum.
- The ribcage in the human body consists of of ribs.
 - 10 pairs
 - 11 pairs
 - 12 pairs
 - 13 pairs

[B] Give reasons for :

- There are cartilages between the vertebrae of the backbone.
.....
- Mercury is used in thermometers.
.....
- Oxygen gas is collected by downward displacement of water.
.....

2. [A] Complete the following statements :

- The percentage of carbon dioxide gas in the atmospheric air is and has the symbol
- The knee joint is considered from joints, while the wrist joint is considered from joints.
- The central nervous system consists of and
- Oxygen atom + oxygen atom =
- conducts heat faster than aluminium.

[B] What happens when ... ?

1. Damage of medulla oblongata.
.....

2. Hydrogen peroxide is dropped over manganese dioxide.
.....

3. [A] Put (✓) in front of the correct statement and (✗) in front of false one :

1. The mass of the body changes as its location changes. ()
2. The scale of medical thermometer starts from 35°C to 42°C. ()
3. Cerebellum maintains the balance of the body during movement. ()
4. All materials are good conductors of heat. ()
5. Magnesium combines with oxygen gas forming a black substance. ()
6. In the Celsius thermometer there is a constriction in the capillary tube. ()

[B] Look at the following figure, then answer :

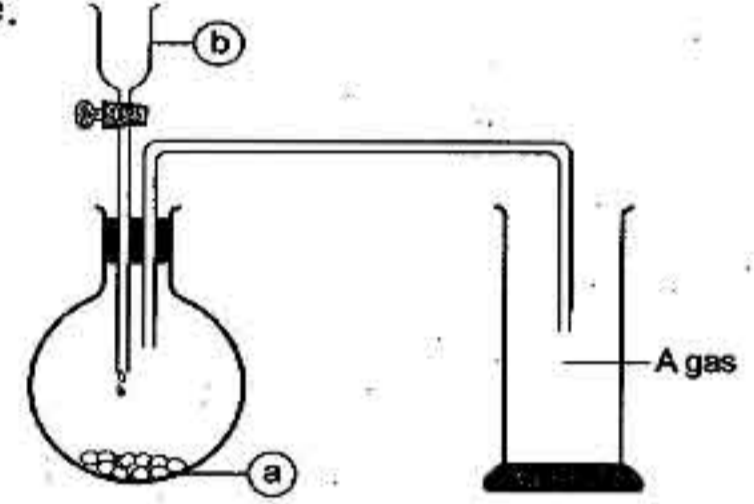
1. Write what represents each label on the figure.

- Substance (a) :

- Liquid (b) :

2. Mention two uses of the evolved gas.
.....

3. The produced gas is not collected by downward displacement of water. Why ?
.....



4. [A] Write the scientific term of each of the following :

1. The gas protects the Earth from harmful radiation. (.....)
2. A bony box contains brain and cavities for eyes , ears and nose. (.....)
3. It passively affects the nervous system causes retardation of memory and learning. (.....)
4. A gas that composes the protein substance that builds up our bodies. (.....)
5. The basic structure of the nervous system. (.....)
6. The liquid that is used in sterilizing the medical thermometer. (.....)

[B] If the weight of a body on the moon 100 Newton. Calculate :

1. Its weight on the Earth.
.....

2. Its mass on the moon.
.....

[C] Compare between :

Point of comparison	Spinal nerves	Cranial nerves
Number

Answer the following questions :

1. [A] Complete the following statements :

1. The scale of Celsius thermometer starts from °C and ends at °C.
2. The number of vertebrae of the backbone is vertebrae, while the ribcage consists of pairs of ribs.
3. In the atmospheric air oxygen gas exists by % and nitrogen gas exists by percentage % .
4. Mass is measured by using, while weight is measured by using

[B] Calculate :

If an object's mass = 30 kg. on the Earth :

1. Its mass on the moon.
.....
2. Its weight on the Earth.
.....

2. [A] Write the scientific term :

1. The force with which a body is attracted to the Earth. (.....)
2. It is the degree helps us to express the hotness or coldness of an object. (.....)
3. The gas that raises the temperature of the Earth when its percentage increases in air. (.....)

[B] Choose from column (B), what suits it in column (A) :

(A)	(B)
1. Joints	a. prevent the friction between vertebrae.
2. Neuron	b. is responsible for regulating the involuntary processes.
3. Cerebellum	c. is the building unit of nervous system.
4. Cartilages	d. the location where bones meet in the body.
5. Medulla oblongata	e. is rapid combination between element and oxygen.
6. Cerebrum	f. keeps the balance of human body during movement.
	g. is responsible for regulating the voluntary movements.

1.
2.
3.
4.
5.
6.

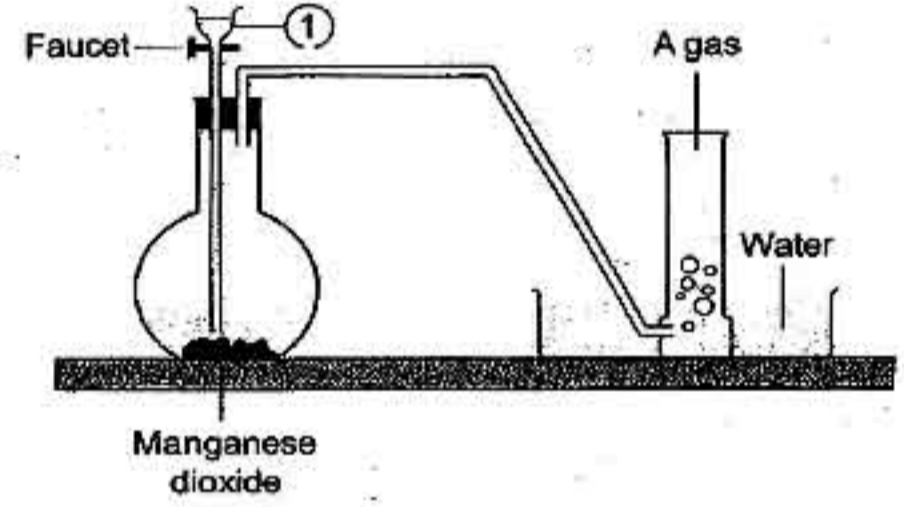
Final Examinations

3. [A] What happens when ... ?

1. The distance between a person in a balloon and the center of the Earth increases.
.....
2. Sitting for long times in front of the computer.
.....
3. You shake the medical thermometer before using it.
.....
4. Knee joints become freely movable joints.
.....

[B] Look at the opposite figure then answer the following questions :

1. Mention the name of the gas which is prepared.
.....
2. This gas is collected by downward displacement of water. Why ?
.....
3. Substance no. ① is :
.....
4. The function of manganese dioxide is
.....



4. [A] Give reasons for :

1. Using oxy-acetylene flame in cutting and welding metals.
.....
2. The handles of cooking pots are made of plastic, while the cooking pots are made of aluminium.
.....
3. The brain is located inside the skull.
.....

[B] Correct the underlined words with right words :

1. Nitrogen gas combines with elements forming oxides (oxidation). (.....)
2. The white matter in the spinal cord has the shape of letter "H". (.....)
3. When the exhaled air passes through clear limewater, it forms calcium oxide. (.....)
4. The bones of lower limbs connected to the shoulder bones. (.....)
5. Iron is the fastest element in conducting heat. (.....)
6. The magnesium ribbon keeps burning and turns into yellow colour in cylinder which contains carbon dioxide gas. (.....)

Answer the following questions :

1. Complete the following statements :

- The measurement unit of mass is , whereas the measurement unit of weight is
- There is a constriction in the thermometer.
- The thermometer is used to measure the water temperature.
- Oxygen gas is prepared in laboratory from in presence of

2. [A] Choose the correct answer :

- When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar the element formed is
a. oxygen. b. nitrogen. c. hydrogen. d. carbon.
- The joint is the location of meeting of
a. two bones. b. muscle with bone.
c. two muscles. d. two cells.
- The best metal in conducting heat is
a. aluminium. b. copper. c. iron. d. wood.
- The gas which turn limewater turbid is gas.
a. oxygen b. carbon dioxide c. nitrogen d. ozone

[B] join from column (A), what is suitable from column (B) :

(A)	(B)
1. Backbone	a. allow movement in all directions.
2. Freely movable joints	b. consists of 33 vertebrae.
3. Slightly movable joints	c. consists of 12 pairs of ribs.
4. Ribcage	d. allow movement in one direction only.
	e. protects the brain.

1. 2. 3. 4.

3. [A] Write the scientific term :

- An organ responsible for reflex action. (.....)
- The center of the main control in human body. (.....)
- A gas molecule consists of three atoms of oxygen. (.....)

Final Examinations

[B] Correcting the underlined words :

1. The liquid used in medical thermometer is the alcohol. (.....)
2. Nitrogen represents 21 % of the volume of the atmosphere. (.....)
3. Carbon dioxide gas is essential to form rust. (.....)

4. [A] Give reasons for :

Carbon dioxide is used in extinguishing (putting off) fires.

.....

.....

[B] What happens when ... ?

There is no oxygen in the atmospheric air.

.....

.....

[C] If an object's mass = 30 kg. on the Earth. Calculate :

1. Its weight on the Earth.

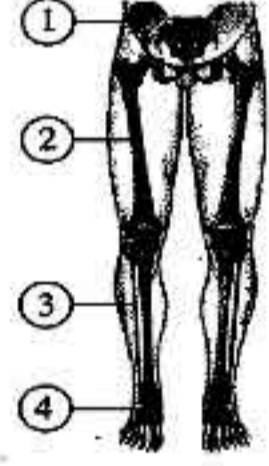
.....

2. Its weight on the moon.

.....

[D] Study the following figure, then label it :

- ①
- ②
- ③
- ④



19

Damitta Governorate

Science Inspectorate

Answer the following questions :

1. Complete the following sentences :

1. The measurement unit of mass is, whereas the measurement unit of weight is
2. Oxygen is produced from process and carbon dioxide is produced from process.
3. As the mass of the planet on which the body exists increases, the of the planet increases and of the body increases.

(131)



هذا العمل حصري على موقع ذاكرولى التعليمى ولا يسمح بنشره فى أى مواقع أخرى
لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

4. Carbon dioxide is prepared in the laboratory by adding to the powder of
5. We use to measure the boiling point of water , while is used to measure the temperature of the patient.
6. The peripheral nervous system consists of of cranial nerves and of spinal nerves.

2. [A] Write the scientific term of each of the following :

1. Automatic response of the body to different stimuli such as light and heat. (.....)
2. Materials that let heat flow through. (.....)
3. The degree of hotness or coldness of a body. (.....)
4. A flame is used in cutting and welding metals. (.....)
5. A gas is used in making soft drinks. (.....)
6. The phenomenon which leads to raise in the Earth's temperature and causes changes in the climate. (.....)

[B] Give reasons for :

1. We must stay away from the source of pollution.
.....
2. Oxygen is collected by downward displacement of water.
.....
3. Mercury is used in thermometers.
.....

3. [A] Choose the correct answer :

1. The cerebellum is responsible for

a. thinking.	b. the body balance.
c. the reflex action.	d. memory.
2. Myelin sheath surrounds the

a. nerve cell's axon.	b. spinal cord.
c. cerebrum.	d. cerebellum.
3. When oxygen combined with an element, the mass of the product is the mass of element.

a. equal to	b. less than	c. more than	d. (a) and (b)
-------------	--------------	--------------	----------------

Final Examinations

4. The device of measuring weight is
- a. the spring scale. b. the balance scale.
c. one-arm scale. d. two-arms scale.
5. Which of the following is from slightly movable joints
- a. thigh. b. wrist. c. ankle. d. knee.
6. Mercury remains in liquid state between C°.
- a. (39 : 357) b. (39 : -357) c. (-39 : 357) d. (0 : 100)

[B] Mention the name of the organ that is responsible for :

1. Controlling the voluntary movements of the body.

.....

2. Protecting the spinal cord.

.....

3. Protecting the heart and the two lungs.

.....

4. Protecting the brain parts.

.....

[C] If an object's mass equals 60 kg. on the Earth's surface. Calculate its mass on the moon's surface ? and why ?

.....

.....

4. [A] What happens in the following cases ?

1. All the bones of the human body are without joints.

.....

2. The over use of stimulating substances.

.....

3. A body moves away from the center of the Earth.

.....

[B] Correct the underlined words :

1. The nodular bacteria fix oxygen of air in the roots of leguminous plants.

(.....)

2. When the exhaled air passes through clear limewater, it becomes turbid

forming a substance called calcium chloride.

(.....)

3. The axon is covered with a fatty substance called gray matter. (.....)

Answer the following questions :

1. [A] Complete the following :

- Oxygen is produced from process and carbon dioxide produced from process.
- The number of cranial nerves is and the number of spinal nerves is
- The medical thermometer is graduated from to
- The is the measurement unit of mass , whereas the is the measurement unit of weight.

[B] What would happen in the following cases ?

- There is no oxygen in the atmospheric air.
.....
- The percentage of carbon dioxide in the air increases.
.....

2. [A] Correct the underlined words in the following statements :

- Copper from substances which the heat cannot pass through it. (.....)
- Nitrogen gas is used in putting off fires. (.....)
- The nodular bacteria fix air oxygen in roots of leguminous plants such as beans and clover. (.....)
- Mass is the force of the Earth's gravity to an object. (.....)

[B] Mention one function for each of the following

- Skull.
.....
- Cartilages between the vertebrae of the backbone.
.....

3. [A] Choose the correct answer :

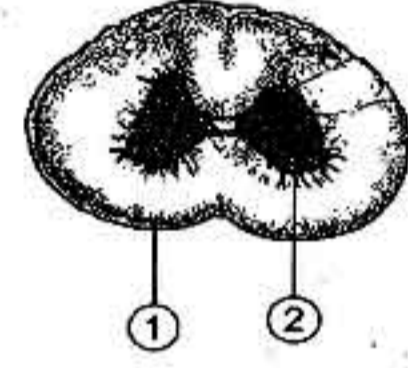
- Respiration and combustion processes consume gas.
a. oxygen b. nitrogen c. argon d. carbon dioxide

Final Examinations

2. The weight of the body on the Earth's surface is 6 Newton, so its weight on the moon surface is
- a. 1 kg. b. 1 Newton. c. 6 kg. d. 6 Newton.
3. The gas which is used with acetylene in welding metals is gas.
- a. oxygen b. nitrogen c. hydrogen d. carbon dioxide
4. Which of the following is from joints ?
- a. Femur. b. Shaft. c. Pelvic. d. Knee.

[B] Look at figure, then answer :

- This is structure of
- Write the names of parts :
- ①
- ②



4. [A] Write the scientific term of each of the following statements :

1. A tool is used to measure body weight. (.....)
2. Materials that let heat flow through. (.....)
3. A system responsible for integration and coordination between systems of the human body. (.....)
4. The location of bones meet and allow moving. (.....)

[B] Give reasons for :

1. Yeast is added to the dough on making bread.
-

2. Aluminium is used in manufacturing of cooking pans.
-

21 El-Minia Governorate

St. Mark and El Tawfik Schools

Answer the following questions :

1. [A] Choose the correct answer :

1. nearly equals the mass of one paper clip.
- a. Kilogram b. Gram c. Newton d. Ton
2. Which of the following is faster in conducting heat ?
- a. Copper. b. Iron. c. Aluminium. d. Glass.

3. Oxygen is produced from process.
 a. burning b. oxidation c. photosynthesis d. respiration
4. The cerebellum is responsible for
 a. thinking. b. the body balance. c. the reflex action. d. memory.

[B] Problem :

An object whose mass on the Earth equals 6 kg. Calculate its weight on both surfaces of the Earth and the moon.

.....

.....

.....

2. [A] Complete the following statements :

- and are some usages of good heat conductors.
- Oxygen gas is prepared by the decomposition of in the presence of
- Mass is measured by scale, whereas weight is measured by scale.
- controls the reflex action (reflexes).
- The percentage of carbon dioxide gas in the atmospheric air is and has the symbol

[B] Give reasons for the following :

- Brain is located in the skull.
.....
- Carbon dioxide gas is used in extinguishing some fires.
.....
- The handles of cooking utensils are made of plastic or wood.
.....

3. [A] Write the scientific term of each of the following :

- The force with which a body is attracted to the Earth. (.....)
- A rapid union between oxygen and an element producing heat and light. (.....)
- The building unit of the nervous system. (.....)
- The area of two bones meeting. (.....)

Final Examinations

[B] Compare between the medical thermometer and the Celsius thermometer :

Points of comparison	Medical thermometer	Celsius thermometer
1. Usage :
2. Structure :
3. Used liquid :
4. Scale :

4. [A] Correct the underlined wrong words in the following statements :

- All materials are good conductors of heat. (.....)
- Ozone molecule is composed of two hydrogen atoms and one oxygen atom. (.....)
- There are 12 pairs of spinal nerves and 31 pairs of cranial nerves. (.....)

[B] Look at the following figure, then answer :

1. Write what represents each label :

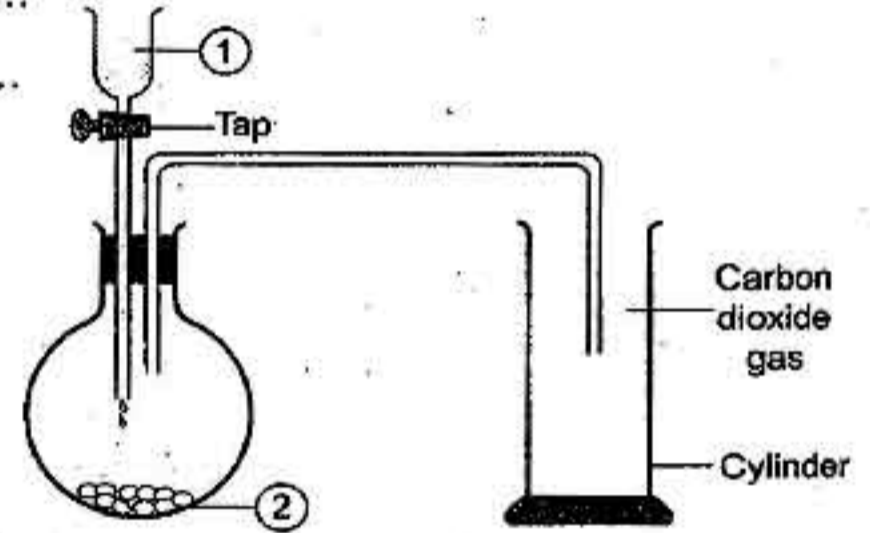
- Liquid ① :
- Substance ② :

2. Mention three uses of carbon dioxide gas :

-
.....
.....

3. Carbon dioxide is collected by upward displacement of air. Why ?

-



22

Assiut Governorate

Science Inspectorate

Answer the following questions :

1. Complete the following statements :

- The measurement unit of mass is or, whereas the measurement unit of weight is
- The nervous system divided into system and system.
- The graduation of medical thermometer begins from 35°C and ends at °C.

المحاضر علوم لغات (Notebook) / 6 ب / ترم 1 (م: 18)

137



هذا العمل حصري على موقع ذاكرولى التعليمي ولا يسمح بنشره فى أى مواقع أخرى
لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

2. [A] Put (✓) or (x) in front of the following :

1. The spring scale is used for measuring weight. ()
2. The mass of body changes as its location changes. ()
3. Celsius thermometer is used to measure the temperature of human being. ()
4. The spinal cord is responsible for the reflexes. ()

[B] Give reasons for :

1. Carbon dioxide is used in extinguishing fires.
.....
2. The balance scale should be placed horizontally on a stable surface.
.....

3. [A] Write the scientific term of each of the following statements :

1. The gas that exists in the atmosphere and protects the Earth from harmful radiations coming from the Sun. (.....)
2. Materials that let heat flow through. (.....)
3. The building unit of nervous system. (.....)
4. They are 12 pairs of nervous emerging from the brain. (.....)

[B] Mention the function of the following :

1. The flame oxy-acetylene.
.....
2. Medulla ablongata.
.....

4. [A] Choose the correct answer :

1. Cerebellum is responsible for
a. thinking. b. balance of the body. c. the reflex action.
2. Nitrogen represents of the Earth's atmosphere.
a. 21 % b. 78 % c. 0.03 %

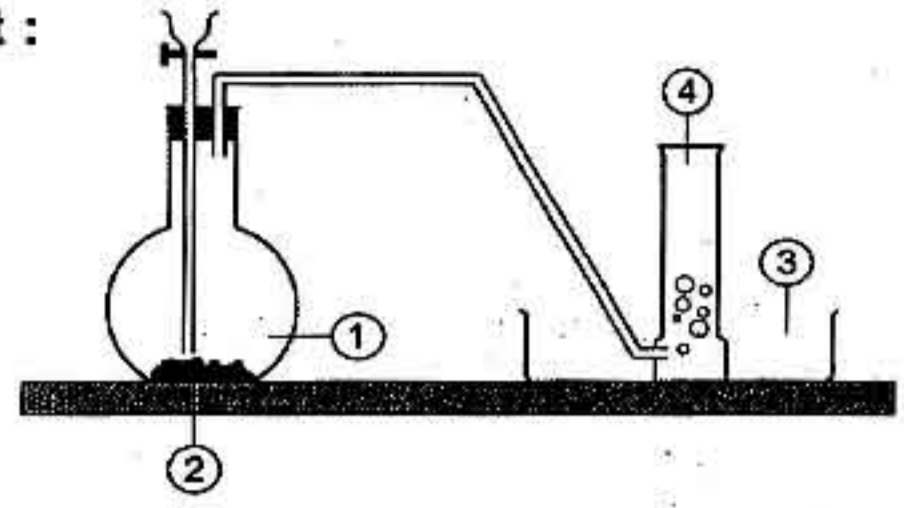
[B] If an object whose mass on the Earth equals 30 kg. Calculate :

1. Its weight on the Earth.
.....
2. Its weight on the moon.
.....
3. Its mass on the moon.
.....

Final Examinations

[C] Look at the opposite figure, then label it :

- ①
- ②
- ③
- ④



23

Sohag Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following statement :

- Mass is measured by, whereas weight is measured by
- The scale of the medical thermometer starts from °C and ends at °C.
- The number of spinal nerves is pairs and the number of cranial nerves is pairs.

[B] Choose the correct answer :

- An object whose weight is 20 Newton on the Earth, its mass is equal to
a. 2 kg. b. 10 kg. c. 20 kg. d. 200 kg.
- Heat insulators are used in making all of the following except
a. handle of iron. b. cooking pots.
c. woolen clothes. d. heavy blankets.
- Which of the following gases have great percentage in the atmospheric air ?
a. Oxygen. b. Carbon dioxide. c. Nitrogen. d. Water vapour.

2. [A] Write the scientific term of each of the following statements :

- A force with which a body is attracted to the Earth. (.....)
- A gas used to put off fires. (.....)
- An organ responsible for the reflex action. (.....)

139



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[B] Mention the function of the following :

1. Celsius thermometer.

.....

2. Oxy-acetylene flame.

.....

3. Cerebellum.

.....

3. [A] Correct the underlined wrong words in the following statements :

1. The measuring unit of mass is Newton.

(.....)

2. Ozone molecule consists of four oxygen atoms.

(.....)

3. Nitrogen gas results from the combustion of organic substances.

(.....)

4. Oxygen gas is called azote which means lifeless.

(.....)

[B] Look at the opposite figure, then answer :

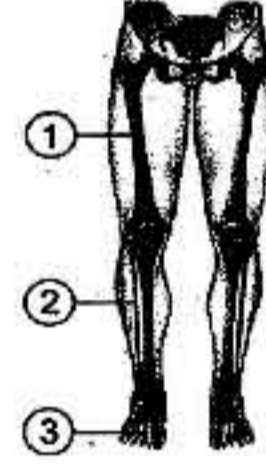
1. Label the numbered bones.

①

②

③

2. This figure represents the bones of limbs.



4. [A] Put (✓) in front of the correct statement and (✗) in front of false one :

1. Heat transfers from the cold object to hot object.

()

2. Oxygen gas occupies 78 % of the atmospheric air.

()

3. Aluminium is a bad conductor of heat.

()

4. CO₂ is heavier than air, so it is replaced the air.

()

5. Legumes such as clover benefit from the nitrogen in the air.

()

6. Manganese dioxide is used as a catalyst during preparation of oxygen.

()

[B] Give reasons for :

1. The brain is located inside the skull.

.....

2. Oxygen gas is collected by downward displacement of water during its preparation in the laboratory.

.....

3. There are cartilages between the vertebrae of the backbone.

.....

24

Luxor Governorate

Luxor Educational Zone

Answer the following questions :

1. [A] Complete the following statements :

1. From the substances which are bad conductors of heat and
2. The mass is measured by scale and the weight is measured by scale.
3. The number of the cranial nerves is and the number of the spinal nerves is
4. and are the sources of carbon dioxide.

[B] Mention the function of each of the following :

1. Celsius thermometer.

.....

2. Cerebellum.

.....

2. [A] Choose the correct answer :

1. The gas which turns clear limewater turbid is gas.
 a. oxygen b. nitrogen c. carbon dioxide d. ozone
2. The centers of thinking and memory lie in
 a. medulla oblongata. b. spinal cord.
 c. cerebellum. d. two cerebral hemispheres.
3. If the weight of a body is 200 Newton, its mass equals
 a. 2 kg. b. 20 kg. c. 200 kg. d. 2000 kg.
4. The liquid used in the manufacture of the thermometer is
 a. hydrogen peroxide. b. water. c. mercury. d. alcohol.

[B] Give reasons for :

1. Air is the main source of nitrogen.

.....

2. Staying away from the tranquilizers and stimulants.

.....

3. [A] Write the scientific term of each of the following statements :

1. The substances that allow heat to pass through. (.....)

2. A bony case that contains brain inside. (.....)

3. An organ responsible for the reflex actions of the body. (.....)

4. A flame is used in cutting and welding metals. (.....)

[B] If a body its mass 60 kg. Calculate its weight on the Earth's surface and also calculate its weight on the moon's surface ?

.....

.....

.....

4. [A] Correct the following statements :

1. The axon of nerve cell is surrounded by gelatinous layer.

.....

2. The weight is constant amount and changes as the location changes.

.....

3. When a glowing magnesium ribbon is placed in a jar containing oxygen gas, a black substance is formed.

.....

4. The maximum and minimum graduation of the clinical thermometer is between (32 : 45) Celsius degrees.

.....

[B] What would happen in the following cases :

1. An iron nail wetted by water is exposed several days to humid air.

.....

.....

2. The percentage of carbon dioxide gas increases in the atmospheric air.

.....

.....

25 South Sinai Governorate

Tur Sinai Educational Directorate

Answer the following questions :

1. [A] Complete the following statements :

1. Mass is a constant value and it is not affected by changing
2. From the functions of the lower limbs
3. The graduation of medical thermometer starts from to
4. The axon of nerve cell is surrounded by
5. An object's weight depends on and

[B] Write one function of :

1. The ribcage.

.....

2. Celsius thermometer.

.....

3. Balance scale.

.....

4. Oxy-acetylene flame.

.....

2. [A] Put (✓) in front of the correct statements and (✗) in front of false one :

1. Iron is the best heat conductor. ()
2. Oxygen gas occupies 0.03 % of the atmospheric air components. ()
3. The skull has immovable joints. ()
4. A black substance is formed when oxygen reacts with a lighted magnesium ribbon. ()
5. Cartilages prevent the friction between the bones of vertebrae. ()
6. The outer surface of the hemispheres is called cerebral cortex and it is a white matter. ()

[B] If the object's mass = 3 kg. on the Earth surface. Calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

3. Its weight on the moon.

.....

[C] Give reasons for :

1. Cooking utensils made of aluminium.

.....

2. Oxygen gas is collected by downward displacement of water.

.....

3. Yeast is added to dough.

.....

3. [A] Choose the correct answer :

1. The used liquid in medical thermometer is

a. water.

b. alcohol.

c. mercury.

2. We can extinguish fire using gas.

a. oxygen

b. nitrogen

c. carbon dioxide

3. The device of measuring weight is

a. two-arms scale.

b. spring scale.

c. digital scale.

4. controls the reflex actions.

a. Spinal cord

b. Cerebellum

c. Cerebrum

5. Respiration and combustion processes consume gas.

a. oxygen

b. nitrogen

c. carbon dioxide

6. Which of the following is responsible for keeping the body balance ?

a. Spinal cord.

b. Medulla oblongata.

c. Cerebellum.

[B] What happens if ... ?

1. Damage of medulla oblongata.

.....

2. The percentage of carbon dioxide gas in air increases.

.....

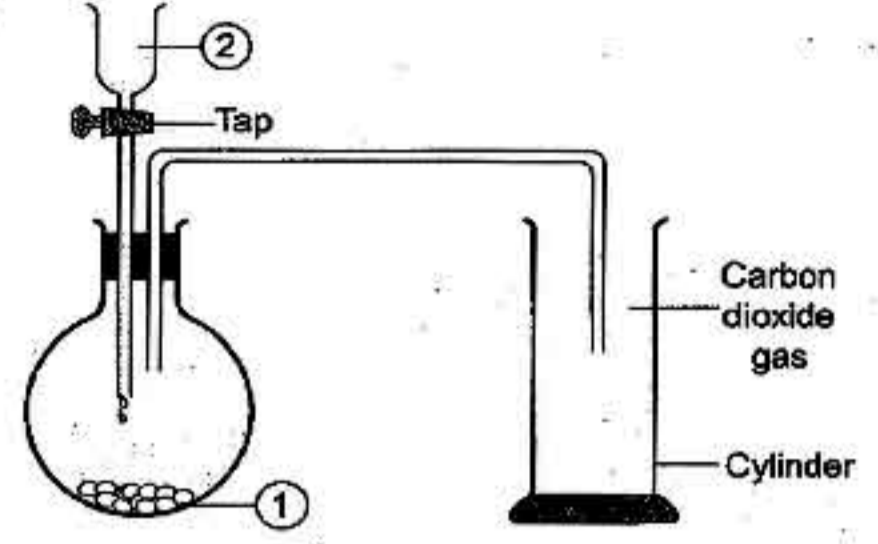
3. There is no constriction above the mercury bulb in the medical thermometer.

.....

Final Examinations

[C] Look at the following figure , then answer :

1. Substance number ① is
2. Liquid number ② is
3. From the properties of the evolved gas is



4. [A] Write the scientific term of each of the following statements :

1. A gas is used by legumes in formation of their proteins. (.....)
2. Substances are formed when iron exposed to the humid air for 3 days. (.....)
3. The measuring unit of mass which equals the mass of one liter of distilled water at the normal temperature. (.....)
4. Materials that do not let heat flow through. (.....)
5. The location at which bones meet each other. (.....)
6. A gas that turns clear limewater into milky. (.....)

[B] Join from column (A), what is suitable to column (B) :

(A)	(B)
1. The backbone	a. they allow movement in one direction only.
2. Ozone gas	b. they allow movement in all directions.
3. Oxygen gas	c. consists of 33 vertebrae.
4. Nitrogen gas	d. hydrogen peroxide is used in its preparation.
5. Slightly movable joints	e. protects the brain.
6. Freely movable joints	f. protects the Earth from harmful radiation.
	g. it represents 78 % of the volume of the atmospheric air.

1.

2.

3.

4.

5.

6.



1

Cairo Governorate

Saint Joseph School

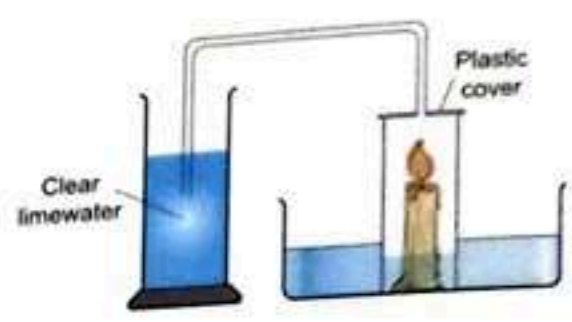
Answer the following questions :

1. [A] Complete the following statements :

1. scale is used to measure the large masses as cheese.
2. and are bad conductors of heat.
3. is a device used to measure temperature.
4. The percentage of oxygen gas in atmosphere equals % , while the percentage of carbon dioxide is %
5. is the system that controls all the vital operations of the body.
6. is the bony box that protects the brain.

[B] Look at the opposite figure, then answer :

1. The candle will because it consumes the gas.
2. Clear limewater turns into due to the passage of gas through it.



[C] What is the importance (usage) of ... ?

1. Good conductors of heat.

.....

2. Medulla oblongata.

.....

2. [A] Choose the correct answer :

1. nearly equals the mass of one paper clip.
a. Kilogram b. Newton c. Gram d. Ton
2. The bulb of the medical thermometer is filled with
a. alcohol. b. water. c. mercury. d. oil.
3. Nitrogen represents of the Earth's atmosphere.
a. 90% b. 21% c. 0.03% d. 78%
4. The cerebellum is responsible for
a. the body balance. b. thinking.
c. memory. d. the reflex actions.

[B] Give reasons for the following :

1. Although oxygen is consumed during respiration, its percentage remains stable in the atmosphere.

.....

2. The weight of a body in a plane is smaller than that on the Earth's surface.

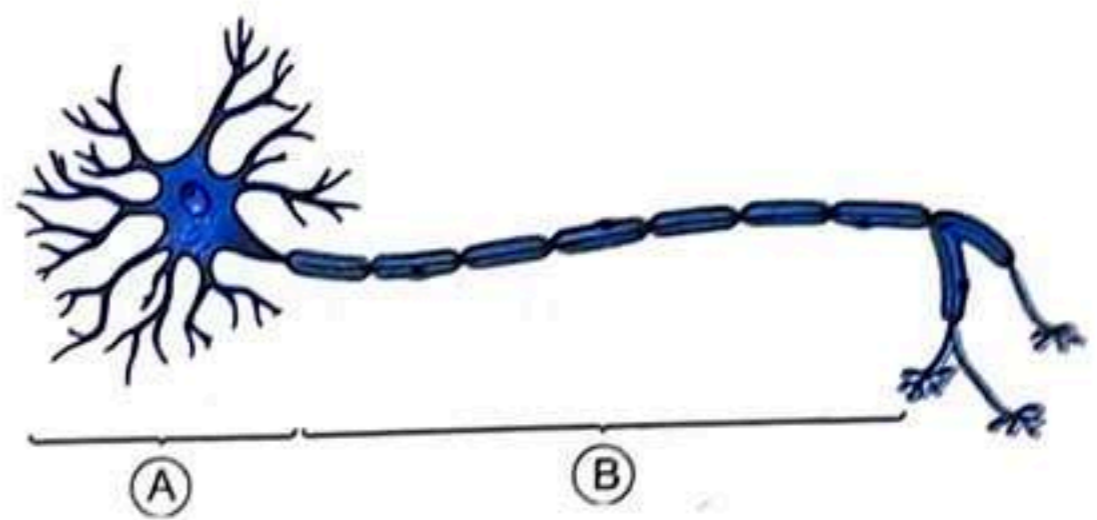
.....

[C] Look at the opposite figure, then answer :

1. This figure indicates the structure of

2. Complete :

- Part (A) represents the
- Part (B) represents the



3. [A] Put (✓) in front of the right statements and (✗) in front of the wrong ones :

1. Newton is the measuring unit of weight of an object whose mass is 100 grams. ()
2. Heat transfers from cold object to hot object. ()
3. Oxygen gas is produced during photosynthesis process. ()
4. Nitrogen gas is the most abundant gas in air. ()
5. The outer part of the brain is a white matter. ()
6. Backbone consists of 33 pairs of vertebrae. ()

[B] If the object's mass = 10 kg. on the Earth, calculate.

1. Its mass on the moon =
2. Its weight on the Earth =
3. Its weight on the moon =

[C] What happens when ... ?

1. A medical thermometer is put in boiled water.

2. The percentage of carbon dioxide gas in air increases.

4. [A] Write the scientific term of each of the following :

1. The amount of matter in an object. (.....)
2. The measuring unit of temperature. (.....)
3. A flame that is used in cutting and welding metals. (.....)
4. A gas that is used by the plant to make photosynthesis process. (.....)
5. The body organ which is responsible for the reflex actions. (.....)
6. The structure which protects the heart and lungs. (.....)

[B] Compare between immovable joints and freely movable joints.

P.O.C.	Immovable joints	Freely movable joints
Definition :
Example :

2**Cairo Governorate****Akhnaton Egyptian Language School****Answer the following questions :****1. [A] Complete the following statements :**

1. The measuring unit of mass is , while the measuring unit of weight is
2. Carbon dioxide gas is changed into liquid by and
3. regulates the heartbeats, while protects the brain.
4. is used to detect the presence of carbon dioxide gas.
5. From the usages of heat conductors is

[B] Give reasons for :

1. The force of the moon's gravity is less than the Earth's gravity.

.....
.....

2. Mercury is used in making thermometers.

.....
.....

2. [A] Write the scientific term :

1. Materials which don't allow heat to pass through. (.....)
2. A gas molecule consists of 3 oxygen atoms. (.....)
3. Automatic response of the body to different stimuli. (.....)
4. The degree of hotness or coldness of a body. (.....)
5. The force by which an object is attracted to the Earth. (.....)
6. The basic structure unit of the nervous system. (.....)
7. A device used to measure the temperature of the human body. (.....)
8. Structure consists of skull, backbone and ribcage. (.....)

[B] What happens when ... ?

1. Oxygen percentage in the air becomes more than 21%.
.....
.....
2. There are no joints in the skeleton.
.....
.....
3. A body moves away from the center of the Earth.
.....
.....
4. The over use of coffee and tea.
.....
.....

3. [A] Choose the correct answer :

1. The gas which doesn't burn but helps in burning is gas.
a. nitrogen b. oxygen c. carbon dioxide
2. The branches which extend from the neuron's body are called
a. dendrites. b. cytoplasm. c. nucleus.
3. Water is formed of
a. oxygen and nitrogen. b. oxygen and hydrogen. c. nitrogen and hydrogen.
4. Nitrogen represents % of the air volume.
a. 78 b. 21 c. 0.03

5. The bones of the upper limbs are connected to the bones.
 - a. humerus
 - b. pelvic
 - c. shoulder
6. Increasing the percentage of gas in the atmosphere leads to increasing the temperature of the Earth.
 - a. oxygen
 - b. nitrogen
 - c. carbon dioxide

[B] Mention the function of :

1. Spring scale.

2. Cartilages between the vertebrae of the backbone.

3. Carbon dioxide (one function only).

4. Oxy-acetylene flame.

[C] Problem :

If the mass of an object is equal to 60 kg. on the Earth's surface. Calculate its mass on the moon's surface.

.....

4. [A] Correct the underlined words :

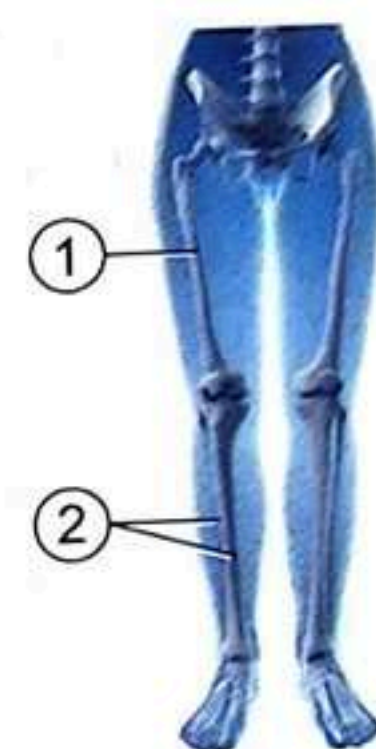
1. The backbone protects the lungs. (.....)
2. During respiration, the gas produced is oxygen. (.....)
3. The nodular bacteria live in the stem of leguminous plants. (.....)
4. The scale of the Celsius thermometer starts from 35°C to 42°C. (.....)
5. Burning is the slow union between oxygen and an element in the presence of moisture. (.....)
6. There are 12 pairs of ribs connected anteriorly to the sternum bone. (.....)

[B] Compare between :

Cranial nerves	Spinal nerves
.....
.....

[C] Label the opposite figure :

- ①
- ②



3 Cairo Governorate

Futures Language Schools

Answer the following questions :

1. [A] Choose the correct answer :

- The main source of oxygen gas in air is process.
 - a. photosynthesis
 - b. respiration
 - c. combustion
- The bulb of thermometer is filled with
 - a. water.
 - b. juice.
 - c. mercury.
- Copper conducts heat faster than
 - a. aluminium.
 - b. iron.
 - c. (a) and (b).
- The weight of any body =
 - a. Its mass × 100
 - b. Its mass × 10
 - c) Its mass / 100
- The axon terminals form a with other neurons.
 - a. synapse
 - b. nerve
 - c. gray matter
- We can extinguish fire using gas.
 - a. carbon dioxide
 - b. oxygen
 - c. hydrogen
- The mercury remains in a liquid state between °C.
 - a. (39 : 357)
 - b. (39 : - 357)
 - c. (- 39 : 357)
- is used as a catalyst in the preparation of oxygen.
 - a. Manganese oxide
 - b. Manganese dioxide
 - c. Hydrogen peroxide

[B] What happens when ... ?

1. A medical thermometer is put in boiled water.
.....
2. The mass of an object increases (regarding the weight of the object).
.....

2. [A] Complete :

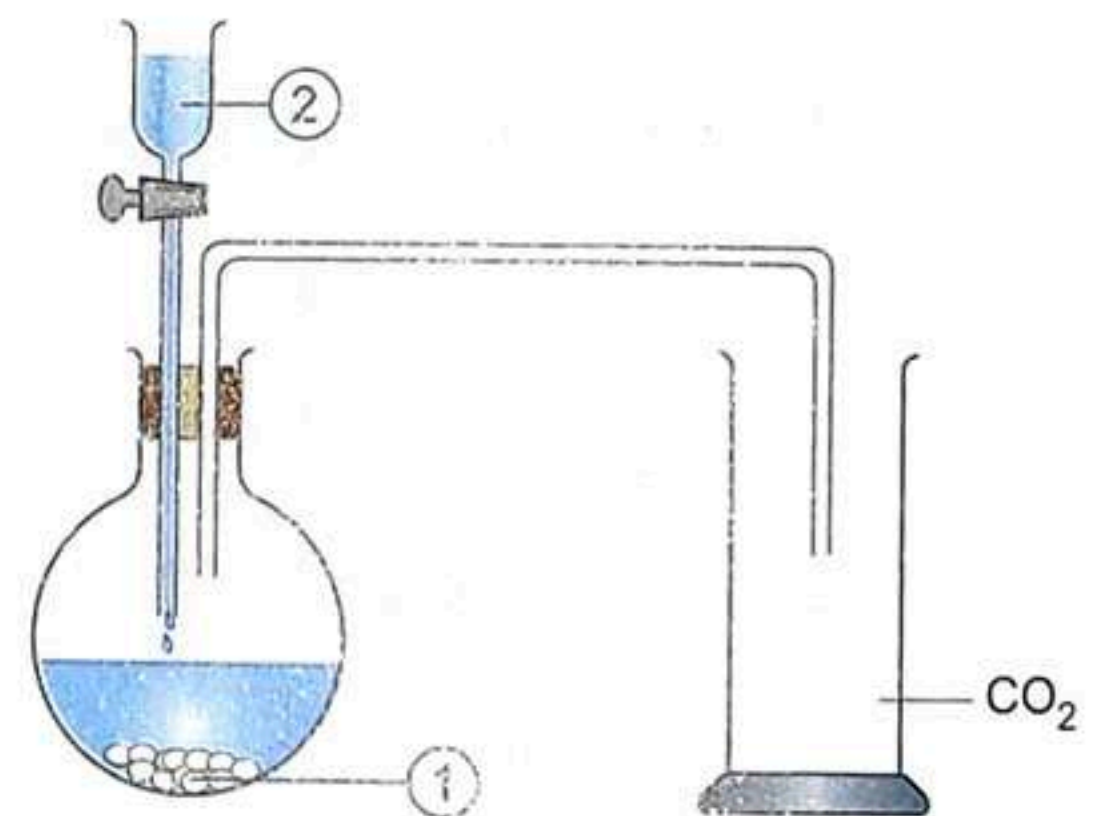
1. The backbone consists of vertebrae, while the ribcage consists of pairs of ribs.
2. Removal of forests leads to the increase in the percentage of gas in air.
3. The maintains the balance of the body during the movement.
4. Oxygen is prepared in the laboratory by adding to

[B] How to keep the nervous system healthy :

1.
2.

[C] Look at the opposite figure, then answer :

1. Substance ① is
2. Liquid ② is



3. [A] Give reasons for :

1. The force of the moon's gravity is less than the Earth's gravity.
.....
2. There is a constriction in the medical thermometer.
.....

[B] Write the scientific term of each of the following :

1. It is a building unit of the nervous system. (.....)
2. A gas that its molecule is composed of 3 oxygen atoms. (.....)
3. It is the force by which a body is attracted to the Earth. (.....)
4. It is a bony box contains cavities for eyes, ears and nose. (.....)
5. It is the degree of hotness or coldness of a body. (.....)
6. It is a mixture of gases surrounding the Earth. (.....)
7. They are branches extending from the neuron's body. (.....)
8. They are materials that don't let heat flow through. (.....)

4. [A] Mention the function of :

1. The Brain.

.....

2. The spinal cord.

.....

.....

[B] Put (✓) or (x) :

1. Nitrogen gas represents 21 % of the volume of atmosphere. ()
2. Heat transfers from cold object to hot object. ()
3. Gram is used to measure big masses. ()
4. Oxy-acetylene flame is used in welding and cutting metals. ()
5. Spring scale is used to measure the weight of any object. ()
6. When magnesium burns in a jar contains oxygen a black substance is formed of magnesium oxide. ()
7. Nitrogen is lifeless gas. ()
8. Cartilages increase friction between bones. ()

4	Cairo Governorate	Manarat Al Farouk Islamic School
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Answer the following questions :**1. [A] Give the key term for the following :**

1. The part of the nervous system that keeps the body balanced. (.....)
2. A gas called "azote". (.....)
3. A catalyst used during the preparation of oxygen gas. (.....)
4. The type of thermometers that is used for measuring the temperature of liquids. (.....)
5. A unit of measuring weight which is equal to a mass of 100 grams. (.....)
6. A gas produced during the fermentation done by yeast. (.....)

[B] Give reasons for the following:

1. You remove your hand quickly when it touches a very hot object.

.....

.....

2. Carbon dioxide is collected by upward displacement of air.

.....

.....

3. Medical thermometers can't be sterilized by being placed in boiling water.

.....

2. [A] Correct the underlined parts of the following sentences:

1. Oxidation is a rapid combination of oxygen and an element which produces heat and light. (.....)
2. Nitrogen represents 61% of air volume. (.....)
3. Mass changes by changing the place on the Earth. (.....)
4. The mass of 1 liter of water is almost 100 gram. (.....)
5. Cerebrum lies at the back area of the brain. (.....)
6. There are 31 pairs of cranial nerves in the human body. (.....)

[B] What is the importance of the following ... ?

1. The catalyst during the preparation of oxygen.
2. Skull.
3. Dendrites.

3. [A] Complete the following :

1. By increasing temperature, the volume of mercury inside a thermometer
2. gas is used for making soda water and soft drinks.
3. Oxygen filled in cylinders can be used and
4. As the distance between an object and the center of the Earth increases, its weight
5. is a slightly movable joint.

[B] Choose the correct answer :

1. An object has the mass of 30 kg., its weight on the moon is
 a. 30 kg. b. 300 N. c. 50 N. d. 300 kg.
2. All of the following are parts of the axial skeleton except
 a. foot bones. b. skull. c. ribcage. d. vertebral column.
3. is a poor heat conductor.
 a. Copper b. Air c. Aluminium d. Iron

4. The outer layer of the spinal cord is made of
 - a. gray matter.
 - b. white blood cells.
 - c. medulla oblongata.
 - d. white matter.
5. There is a constriction above the bulb in case of
 - a. Celsius thermometer.
 - b. digital balance.
 - c. medical thermometer.
 - d. spring scale.
6. A is a tool of measuring weight.
 - a. medical thermometer
 - b. double pan balance
 - c. spring scale
 - d. newton

4. [A] Give one example for each of the following :

1. Mass measuring units :
2. Parts of central nervous system :
3. Freely movable joints :
4. Factors affecting weight :
5. Uses of carbon dioxide :
6. Air pollutants :

[B] Write what happens in the following cases :

1. Dissociation of hydrogen peroxide.
.....
.....
2. Oxygen burns with acetylene.
.....
.....
3. Wearing heavy clothes in winter.
.....
.....

5 Cairo Governorate

Bloom Language School

Answer the following questions :

1. [A] Complete the following statements :

1. The number of vertebrae of vertebral column is
2. Oxygen is prepared from decomposition of in presence of
3. The number of peripheral nerves in the human body is

4. The weight of any object is measured by using the
5. gas combines with acetylene and used in welding metals.
6. The handles of cooking pots are made of
7. Nitrogen represents % of the air.
8. The global warming and rising of the temperature are the results of gas.

[B] Give reasons for :

1. Damage of medulla oblongata leads to death.

.....

2. Carbon dioxide gas is used in extinguishing fires.

.....

2. [A] Choose the correct answer :

1. All the following are from the components of the central nervous system except

a. spinal nerves.	b. two cerebral hemisphere.
c. spinal cord.	d. medulla oblongata.
2. When a glowing magnesium ribbon is placed in a jar containing carbon dioxide gas, on the walls of the jar the element that is formed is

a. oxygen.	b. nitrogen.	c. hydrogen.	d. carbon.
------------	--------------	--------------	------------
3. The thoracic ribcage in man consists of pairs of ribs.

a. 10	b. 11	c. 12	d. 13
-------	-------	-------	-------
4. The gas which turns limewater into turbid is gas.

a. oxygen	b. nitrogen	c. carbon dioxide	d. ozone
-----------	-------------	-------------------	----------
5. is surrounded by a fatty layer.

a. Axon of nerve cell	b. Cerebellum
c. Spinal cord	d. Cerebrum
6. Reflex action takes place in

a. spinal cord.	b. cerebrum.
c. medulla oblongata.	d. cerebellum.

[B] What happens when ... ?

1. Getting rid of nodular bacteria.

.....

2. There is no oxygen in the atmosphere.

.....

3. Sitting for long periods in front of computers and television.

.....

3. [A] Write the scientific term :

1. The main system that is responsible for the body movement. (.....)
2. The automatic response of the body to different stimuli. (.....)
3. The main source of nitrogen gas. (.....)
4. A device used to measure the temperature of the human body. (.....)
5. A force by which a body is attracted to the Earth. (.....)
6. The amount of matter in an object. (.....)

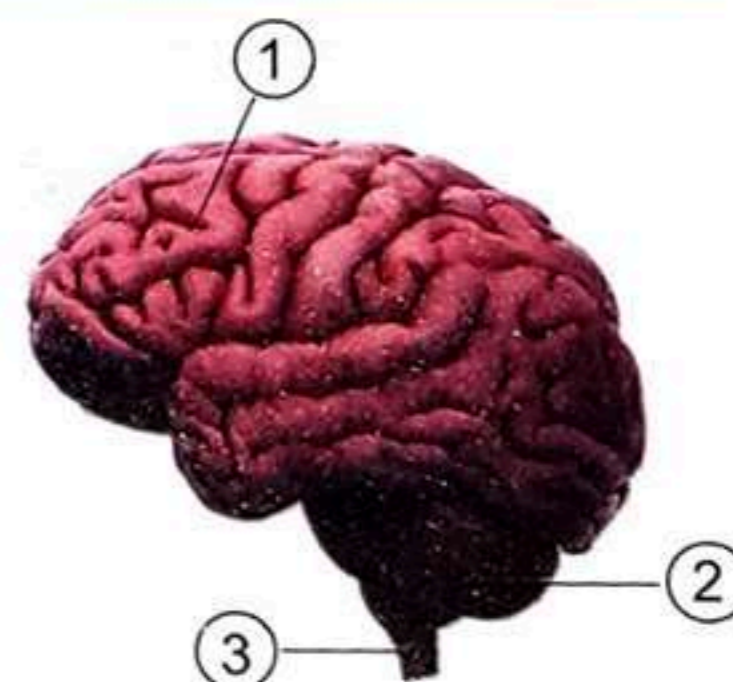
[B] Put (✓) or (x) :

1. The weight of an object increases with the increase of its mass. ()
2. Human suffers from suffocation after breathing carbon dioxide gas. ()
3. Nitrogen is called azote and it means gas of the life. ()
4. Appendicular skeleton consists of upper and lower limbs bones. ()
5. Brain is composed of two cerebral hemispheres, cerebellum, spinal cord and the skull. ()
6. Air is a good conductor of heat. ()

4. [A] Label the opposite figure :

- ①
- ②
- ③

- This figure represents the structure of the
- What is the function of part ② ?



[B] Problem :

If the object's mass = 30 kg. on the Earth. Calculate :

- a. Its mass on the moon.
.....
- b. Its weight on the Earth.
.....
- c. Its weight on the moon.
.....

Answer the following questions :

1. [A] Complete the following sentences :

- The measuring unit of the mass is , while the measuring unit of the weight is
- conducts heat faster than aluminium.
- The medical thermometer scale starts from °C and ends at °C.
- Hydrogen peroxide decomposed into and water in the presence of

[B] Choose from column (B) what suits it in column (A) :

(A)	(B)
1. Cerebrum	a. Is a liquid used to sterilize the thermometer before using.
2. Ethyl alcohol	b. Is the measuring device of weight.
3. Spring scale	c. Its temperature reaches 3500°C.
4. Oxy-acetylene flame	d. Responsible for voluntary movements.

1. 2. 3. 4.

2. [A] Put (✓) or (✗) :

- Heat transfers from hot object to cold one. ()
- Newton equals the weight of an object its mass 100 grams. ()
- The number of cranial nerves is 31 pairs. ()
- The nodular bacteria fix the oxygen for the leguminous plant. ()

[B] Give reasons for :

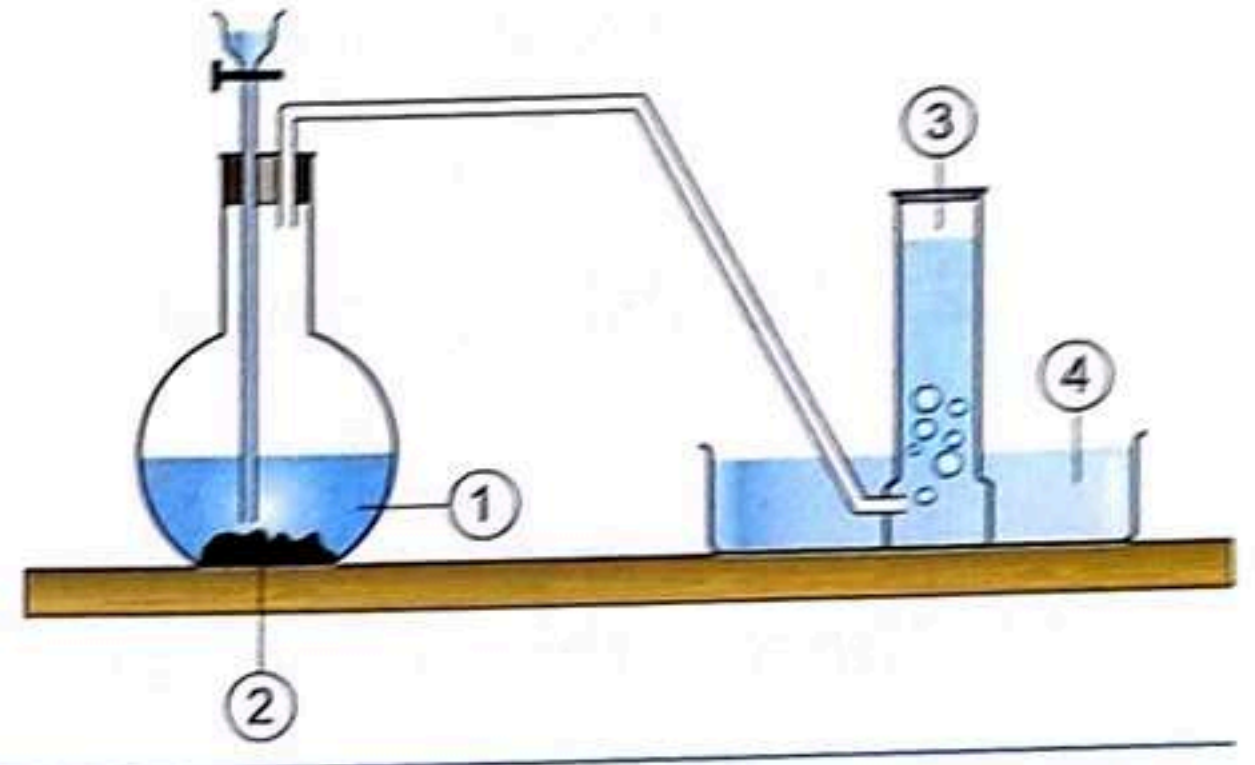
- There is a constriction above mercury bulb in medical thermometer.
.....
- Carbon dioxide gas is collected by upward displacement of air.
.....
- Damage of the medulla oblongata causing death.
.....
.....
- You have to keep away from tranquilizers and stimulants.
.....

3. [A] Write the scientific term :

1. The force by which the body is attracted to the center of the Earth. (.....)
2. Liquid used in making thermometers. (.....)
3. Automatic response to external stimuli. (.....)
4. The gas which represents 78% of the air volume. (.....)

[B] Label the opposite diagram :

- ①
- ②
- ③
- ④



4. [A] Choose the correct answer :

1. The planet on which the body weight equals 6 times as its weight on the moon, is
 - a. Mars.
 - b. the Earth.
 - c. Jupiter.
2. The substances which are bad conductors of heat are
 - a. iron and aluminium.
 - b. glass and wood.
 - c. copper and glass.
3. The gas which is used in making dry ice is
 - a. oxygen.
 - b. nitrogen.
 - c. carbon dioxide.
4. From the immovable joints
 - a. joints between skull bones.
 - b. knee.
 - c. wrist.
5. The gray matter of the spinal cord takes the shape of
 - a. letter R.
 - b. letter H.
 - c. letter S.

[B] A body of mass 6 kg. on the surface of the Earth, calculate :

- a. Its mass on the moon =
- b. Its weight on the Earth's surface =

Answer the following questions :

1. [A] Write the scientific term of the following :

1. A part from the axial skeleton consists of 33 vertebrae. (.....)

2. The location at which bones meet each other. (.....)
3. A slow combination of oxygen with an element in the presence of moisture. (.....)
4. A gas that is called azote which means lifeless gas. (.....)

[B] What happens when ... ?

1. You hold a piece of ice in your hand.
.....
2. The distance between an object and the center of the Earth increases.
.....

2. [A] Choose the correct answer :

1. The gas that is mixed with oxygen for cutting and welding metals is
a. nitrogen. b. hydrogen. c. acetylene. d. water vapour.
2. The bone that connects the ribs from the front is
a. femur. b. skull. c. humerus. d. sternum.
3. If the weight of the body is 20 Newton, its mass equals
a. 200 g. b. 20 kg. c. 2000 g. d. 200 kg.
4. The best metal in conducting heat is
a. copper. b. aluminium. c. iron. d. mercury.

[B] Give reasons for :

1. Damage of medulla oblongata lead to death.
.....
2. Mercury is used in making thermometers.
.....

3. [A] Complete the following :

1. Heat transfers from the temperature object to the temperature object.
2. The mass is value, while the weight is value.
3. The number of cranial nerves is, while the number of spinal nerves is
4. The oxygen gas is prepared by decomposition of in the presence of

[B] Correct the underlined words :

- The automatic response of the body to external stimuli is known as the voluntary response. (.....)
- We should use water to sterilize the medical thermometer. (.....)

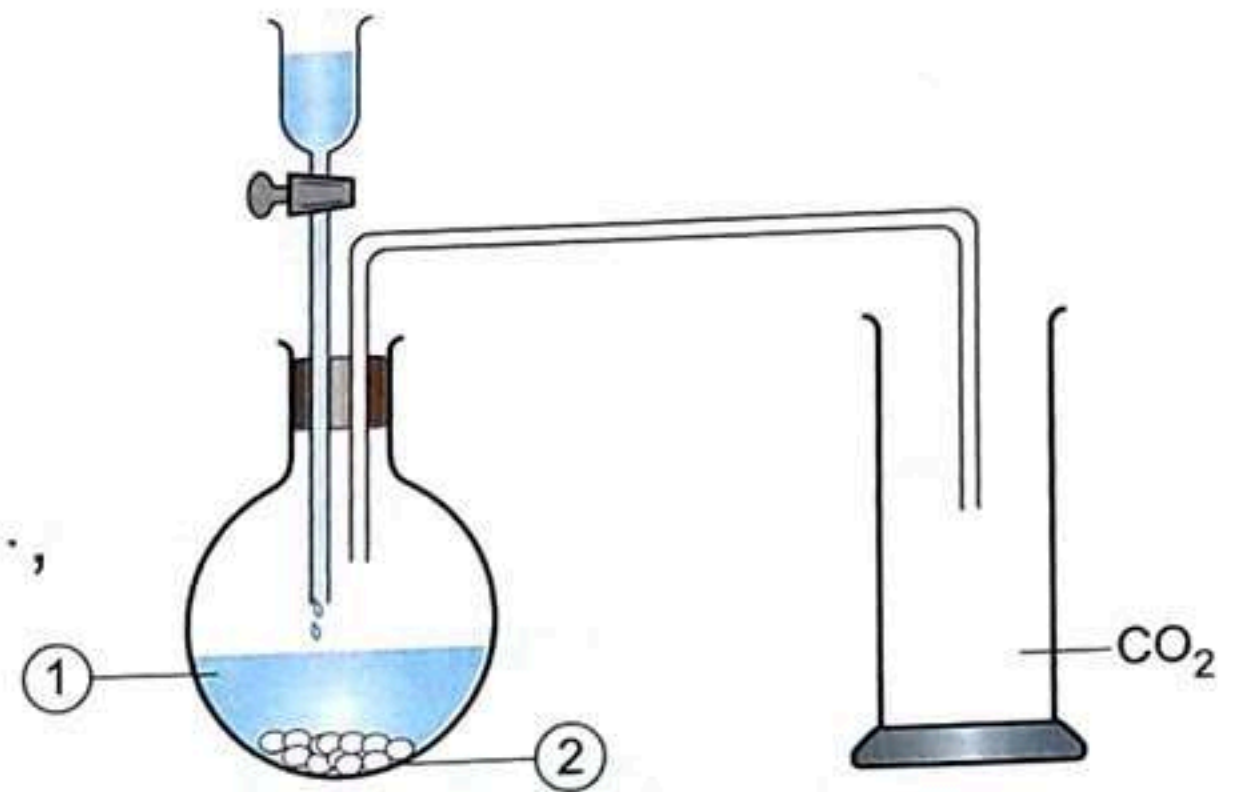
4. [A] Look at the opposite figure, then answer :

a. Label the figure :

- Liquid ①
- Substance ②

b. Carbon dioxide gas is collected by, because it is

c. Mention only one use for this gas.
.....



[B] Problem :

If the object mass = 12 kg. on the Earth, calculate :

- Its mass on the moon surface.
.....
- Its weight on the Earth.
.....
- Its weight on the moon.
.....

8

Alexandria Governorate

Al-Montazah Educational Zone

Answer the following questions :

1. [A] Complete the following :

- Mass is measured by using, while weight is measured by using
- and are good conductors of heat.
- is used to sterilize the medical thermometer before using.
- Oxy-acetylene flame is used in and of metals.
- Reflex action takes place through the

[B] Give reasons for :

1. The weight of a person on the Earth is larger than that on the moon.
.....

2. Oxygen gas is not used in extinguishing fire.
.....

2. [A] Choose the correct answer :

1. Carbon dioxide gas is used in making

a. dry ice.

b. protein.

c. ozone gas.

2. Cerebrum controls the movements.

a. voluntary

b. involuntary

c. (a) and (b) are correct

3. The joint is the location of meeting of

a. two bones.

b. two muscles.

c. a muscle and a bone.

4. A liquid that is used in thermometers

a. water.

b. mercury.

c. oil.

[B] What happens when ... ?

1. The medulla oblongata is damaged.
.....

2. A lighted magnesium ribbon is inserted in a cylinder filled with CO_2
.....

3. [A] Put (✓) or (✗) and correct the wrong ones :

1. By increasing the distance away from the center of the Earth, decreasing weight and mass of an object occurs. ()

2. All materials are good conductors of heat. ()

3. Hydrogen peroxide dissociates into oxygen and water in the presence of manganese oxide. ()

4. Nitrogen gas is used in making soft drinks. ()

[B] Write the scientific term :

1. The gas protects the Earth from harmful radiation. (.....)

2. Part of brain responsible for keeping the balance of body. (.....)

3. Gas is collected by downward displacement of water. (.....)

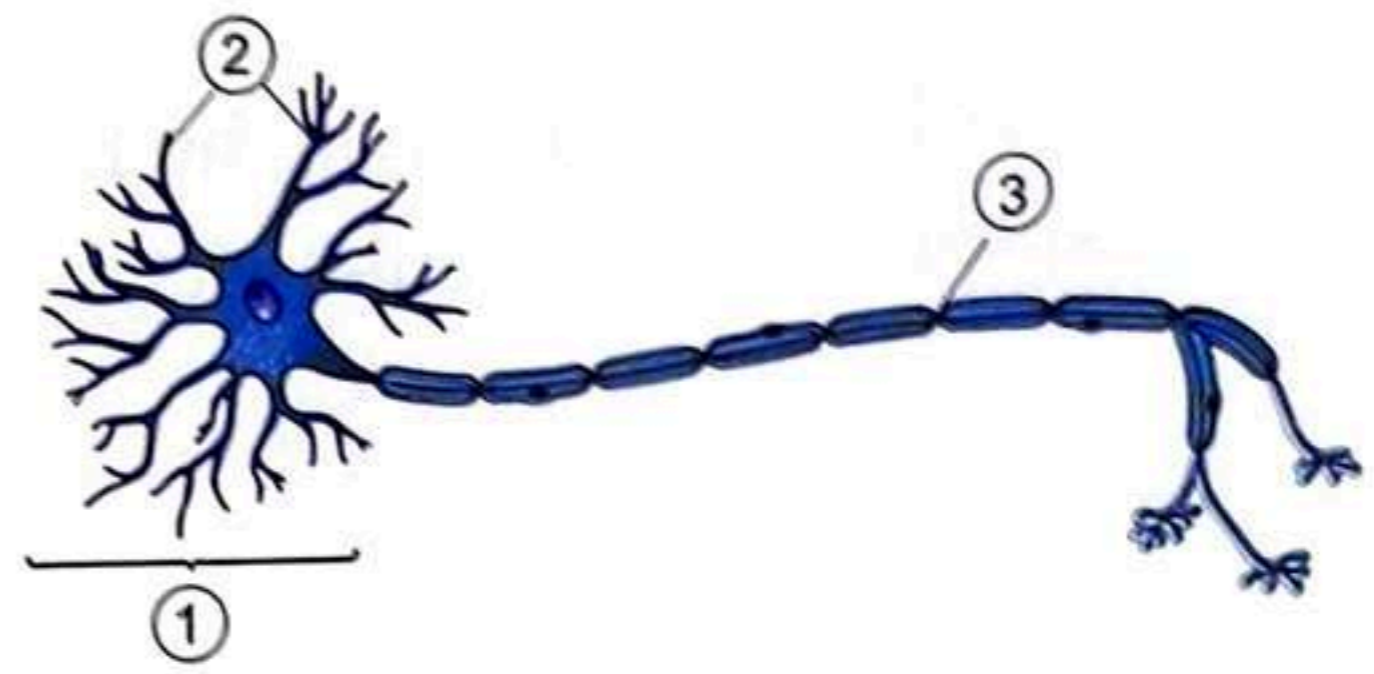
4. A phenomenon that occurs due to increasing of the ratio of CO_2 (.....)

4. [A] Look at the figure, then answer :

1. This figure represents

2. Label the figure :

- ①
- ②
- ③



[B] Body its mass on the Earth = 3 kg. Calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

[C] Mention the number of the following :

1. Ribs :

2. Vertebrae :

3. The scale of medical thermometer from 35°C to

4. The ratio of nitrogen gas in air is :

9

Kalyoubia Governorate

Al Resala Language School

Answer the following questions :

1. [A] Complete the following sentences :

1. The Celsius thermometer is scaled from to

2. Exhaled air contains gas, which turbids

3. The ribcage protects and

4. Oxygen gas represents % of the air volume, while gas represents 78% of the air volume.

5. Handles of cooking pots are made of

6. Your weight on the Earth's surface is 600 Newton, so your weight on the moon's surface is Newton.

[B] Look at the opposite diagram, then answer :

a. This apparatus is used for the preparation of gas.

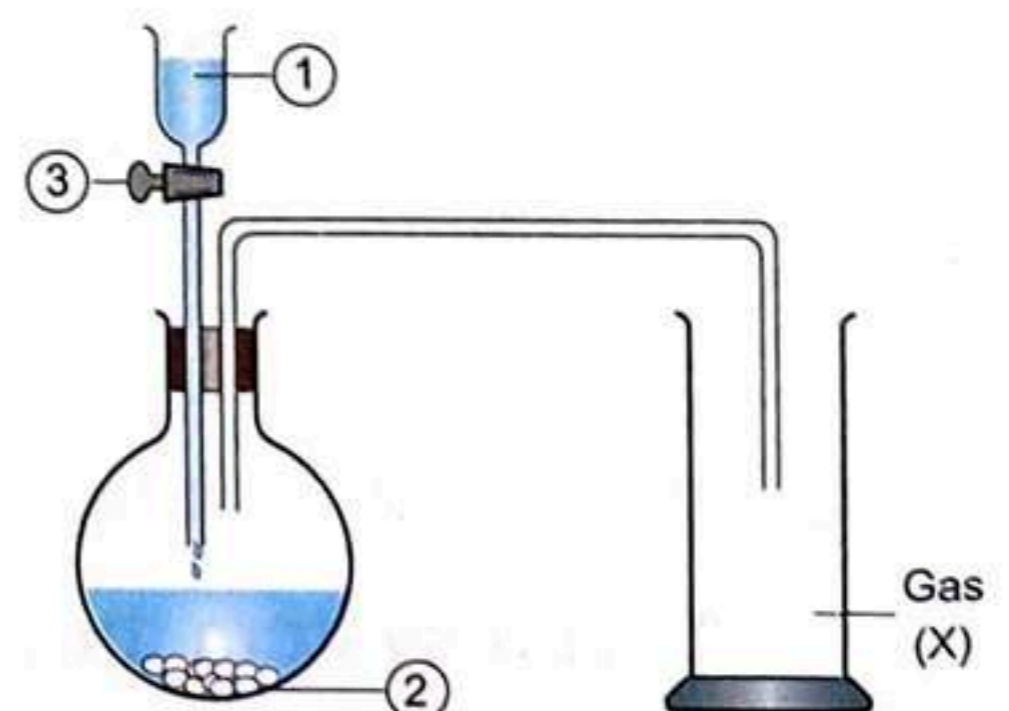
b. Label the figure :

1. Liquid ① is

2. Substance ② is

3. Part ③ is

4. Gas (X) is used by green plants in process.



[C] Problem :

An object its mass on the Earth is 90 kg. Calculate its weight on the moon surface, then calculate its mass on Mars planet.

.....

.....

2. [A] Correct the underlined words :

1. Carbon dioxide gas consists of one carbon atom and three oxygen atoms. (.....)
2. Medulla oblongata controls the body balance during movement. (.....)
3. The medical thermometer is graduated from 0°C to 100°C. (.....)
4. The white matter in the spinal cord has the shape of letter H. (.....)

[B] Classify each of the following joints by using the words between brackets :

(Freely movable – Slightly movable – Immovable)

1. Joints between skull bones. (.....)
2. Wrist joint. (.....)
3. Knee joint. (.....)
4. Shoulder joint. (.....)

[C] Give reasons for :

1. The presence of a constriction in the medical thermometer.
.....
.....
2. The mass of a body on the Earth's surface equals the mass of the same body on the moon's surface.
.....
.....
3. Nitrogen gas is called azote.
.....
.....
4. The withdrawal of the hand quickly when it suddenly touches a hot surface.
.....
.....

3. [A] Write the scientific term :

1. The system that consists of 43 pairs of nerves. (.....)
2. A device that is used to measure the large masses. (.....)

3. The slowest metal in conducting heat. (.....)
4. The liquid that is used in sterilizing thermometers. (.....)
5. The gas that helps in the combustion process. (.....)
6. It is almost equal to the weight of an object on the Earth's surface whose mass is 100 grams. (.....)

[B] Match :

(A)	(B)
1. Kilogram	a. is measured in Newton.
2. Ribcage	b. is the measuring unit of mass.
3. Weight	c. is a part of axial skeleton that helps in respiration.
4. 0°C	d. is the measuring unit of weight.
	e. is the melting point of ice.

1. 2. 3. 4.

[C] What happens when ... ?

1. A medical thermometer is put in boiling water.
.....
2. Carbon dioxide gas decreases in the air.
.....
3. Absence of cartilages between the vertebrae of the backbone.
.....
4. Addition of manganese dioxide over hydrogen peroxide.
.....

4. [A] Choose the correct answer :

1. is the force with which all objects are attracted to the Earth.
a. Mass b. Weight c. Volume
2. The rapid combination between oxygen and elements producing heat and light is called
a. respiration. b. burning. c. oxidation.
3. gas is used in making bread and dough.
a. Carbon dioxide b. Oxygen c. Nitrogen
4. An object whose weight is 400 Newton on the Earth, so its mass equals
a. 40 kg. b. 40 g. c. 400 kg.

5. Legumes as clover benefit from nitrogen in formation of
 a. fats. b. carbohydrates. c. proteins.
6. You feel hot on touching a hot cup of tea because the temperature of the cup is that of your hand.
 a. more than b. less than c. (a) & (b) are correct

[B] Put (✓) or (x) :

1. The spring scale is used to measure the object's mass. ()
2. Oxygen gas doesn't burn but helps in burning. ()
3. The medulla oblongata controls the voluntary movements. ()
4. Heat transfers from the cold body to the hot body. ()
5. Mercury is a bad heat conductor. ()
6. Oxygen gas is collected by the downward displacement of water. ()

[C] Give an example for each of the following :

1. A measuring tool for jewels. (.....)
2. A gas which is used in making dry ice. (.....)
3. A heat insulator that is used in making heavy woolen clothes. (.....)

10

Menofia Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following statements :

1. Carbon dioxide gas is prepared by adding to
2. The first ten pairs of the ribcage are connected anteriorly with
3. The lower limbs are connected to bones, while the upper limbs are connected to bones.
4. The phenomenon is resulted from increasing the ratio of carbon dioxide gas in the atmosphere.

[B] Put (✓) or (x) in front of the following statements :

1. Nitrogen is called lifeless gas. ()
2. The cerebrum controls the heartbeats. ()
3. The mass of the iron wire increases after burning. ()
4. Calcium carbonate is used in the preparation of oxygen. ()
5. Heat transfers from cold object to the hot object. ()
6. The temperature is the degree of hotness or coldness of the body. ()

2. [A] Write the scientific term :

1. A process occurs when the yeast is added to the dough. (.....)
2. The area of connection between the dendrites of the neighbouring neurons. (.....)
3. The unit of measuring temperature. (.....)
4. A type of plants form protein by the help of specific type of bacteria live in their roots. (.....)
5. Type of oxides is formed during lightening. (.....)
6. It consists of skull, backbone and ribcage. (.....)

[B] What happens when ... ?

1. Putting a lighted magnesium ribbon in a cylinder contains carbon dioxide gas.
.....
2. The ratio of oxygen increases in air.
.....
3. We put the medical thermometer in boiled water.
.....

3. [A] An object whose mass on the Earth equals 30 kg. Calculate :

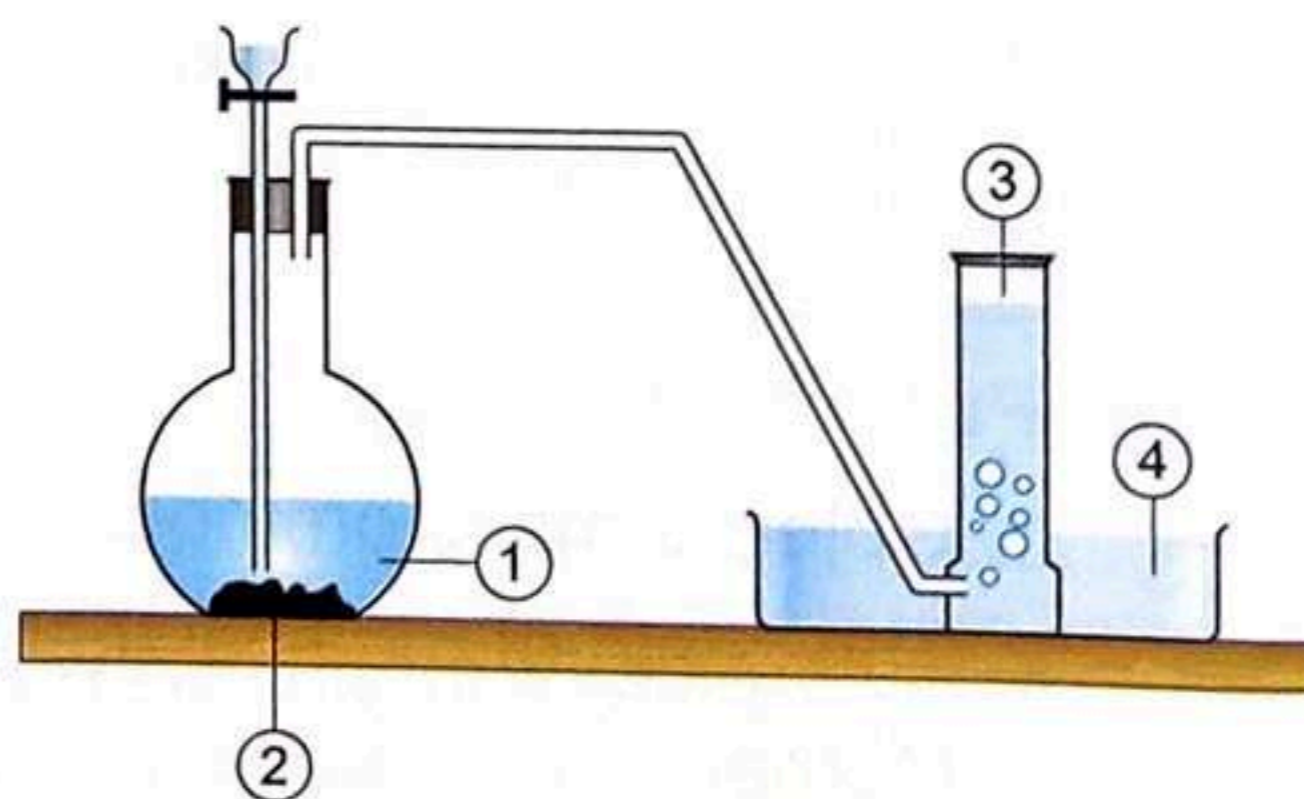
1. Its mass on moon.
.....
2. Its weight on the Earth
.....
3. Its weight on moon.
.....

[B] Cross out the odd word :

1. Gram – Kilogram – Newton – Ton. (.....)
2. Cerebrum – Cerebellum – Medulla oblongata – Spinal nerves. (.....)
3. Humerus – Forearm bones – Hand bones – Femur. (.....)

[C] Complete the following :

- ①
 - ②
 - ③
 - ④
- The substance number ② works as



4. [A] Give reasons for :

1. The balance scale must be put horizontally on a stable surface.
.....

2. The mercury gives a wide range in measuring temperature.
.....

3. Damage of the medulla oblongata causes death.
.....

[B] Write one importance for each of the following :

1. The dry ice :

2. Joint :

3. Ozone layer :

4. The cerebellum :

5. The upper limbs :

6. The cartilages between vertebrae :

11**Dakahlia Governorate****East Mansoura Educational Zone****Answer the following questions :****1. [A] Complete the following :**

- Carbon dioxide gas in water, but oxygen gas in water.
- The knee joint is considered from joints, while the shoulder joint is considered from joints.
- The skull protects, and protects spinal cord.
- Mass is measured by scale, whereas weight is measured by scale.

[B] What happens when ... ?

1. The over intake of coffee and tea.
.....

2. Passing carbon dioxide gas in clear limewater.
.....

2. [A] Put (✓) or (✗) :

- Object's mass on moon's surface = $\frac{1}{6}$ × its mass on the Earth. ()
- The scale of medical thermometer starts from 0°C to 42°C. ()
- Cerebellum contains the centers of thinking and memory. ()

4. All metals are good conductors of heat. ()
5. The mass of an element increases after combination with oxygen. ()
6. The Celsius thermometer is used to measure the boiling point of water. ()

[B] Look at the opposite figure, then answer :

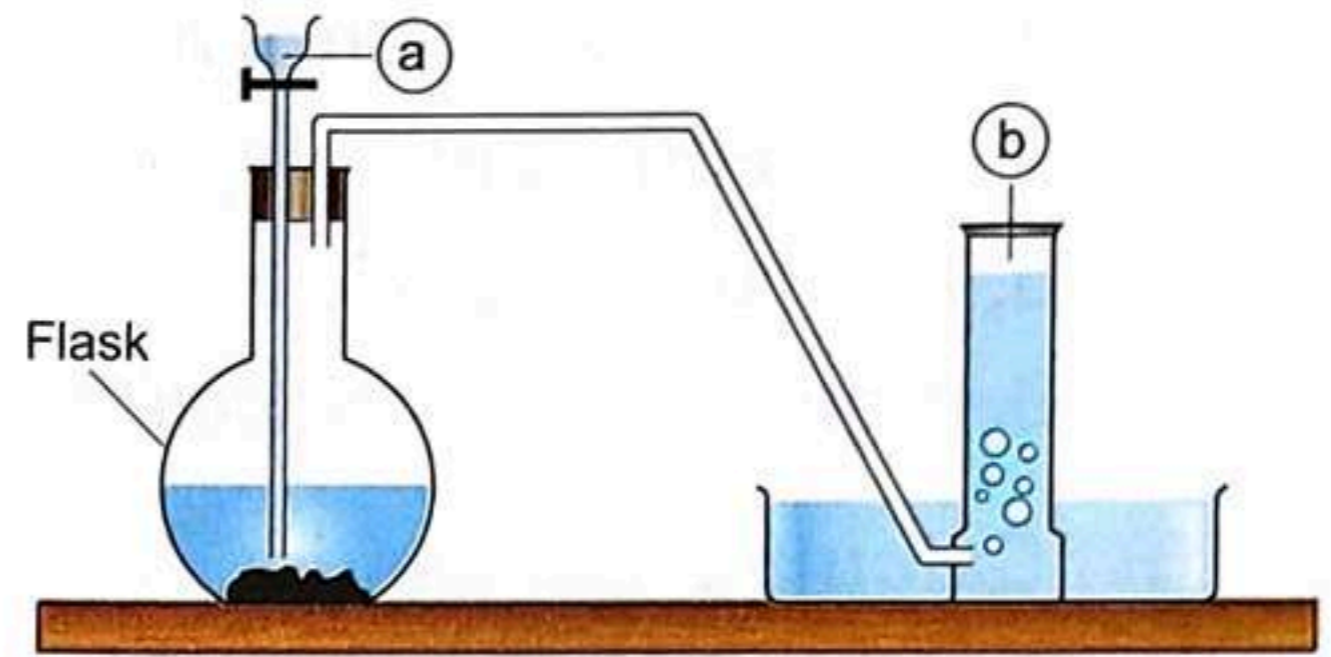
1. Write what represents each label on the figure :

- (a)
- (b)

2. What do you find in the flask after preparation process ?

.....

.....



3. [A] Choose the correct answer :

1. Newton is equal to the weight of an object on the Earth's surface whose mass equals

a. 1 kg.	b. 0.1 kg.	c. 10 g.	d. 1000 g.
----------	------------	----------	------------
2. A structure links the brain with the spinal cord

a. cerebrum.	b. cerebellum.	c. medulla oblongata.	d. joint.
--------------	----------------	-----------------------	-----------
3. lets heat flow through.

a. Wool	b. Wood	c. Air	d. Aluminium
---------	---------	--------	--------------
4. The used liquid in the medical thermometer is

a. water.	b. hydrogen peroxide.
c. nitrogen.	d. mercury.
5. One of the components of the nerve cell body is the

a. blood vessel.	b. myelin sheath.	c. dendrites.	d. synapse.
------------------	-------------------	---------------	-------------
6. Bones of upper limbs are connected to bones.

a. pelvic	b. shoulder	c. sternum	d. shaft
-----------	-------------	------------	----------

[B] Give reasons for :

1. Ozone layer is very important for the life of all living organisms.
.....
2. We must shake the medical thermometer well before using.
.....
3. Carbon dioxide gas is used in extinguishing some types of fires.
.....

4. [A] Write the scientific term of each of the following :

1. The degree of hotness or coldness of a body. (.....)
2. System that controls and regulates all vital operations of your body. (.....)
3. The most abundant gas in air. (.....)
4. The phenomenon is resulted due to increasing the temperature of the Earth's atmosphere due to increasing the percentage of CO_2 gas. (.....)
5. It allows the body to bend in different directions. (.....)
6. A gas that its molecule is composed of three oxygen atoms. (.....)

[B] Calculate the weight of an object on the Earth's surface and on moon's surface. If you know that its mass is equal to 600 gm.

.....

[C] What is the number of ?

1. The ribs of ribcage are
2. The nerves of peripheral nervous system are

12

Ismailia Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following sentences :

1. The scale of medical thermometer starts from $^{\circ}\text{C}$ and ends at $^{\circ}\text{C}$.
2. The measuring unit of weight is, while the measuring unit of mass is
3. The central nervous system consists of and

[B] Look at the opposite figure, then answer the questions :

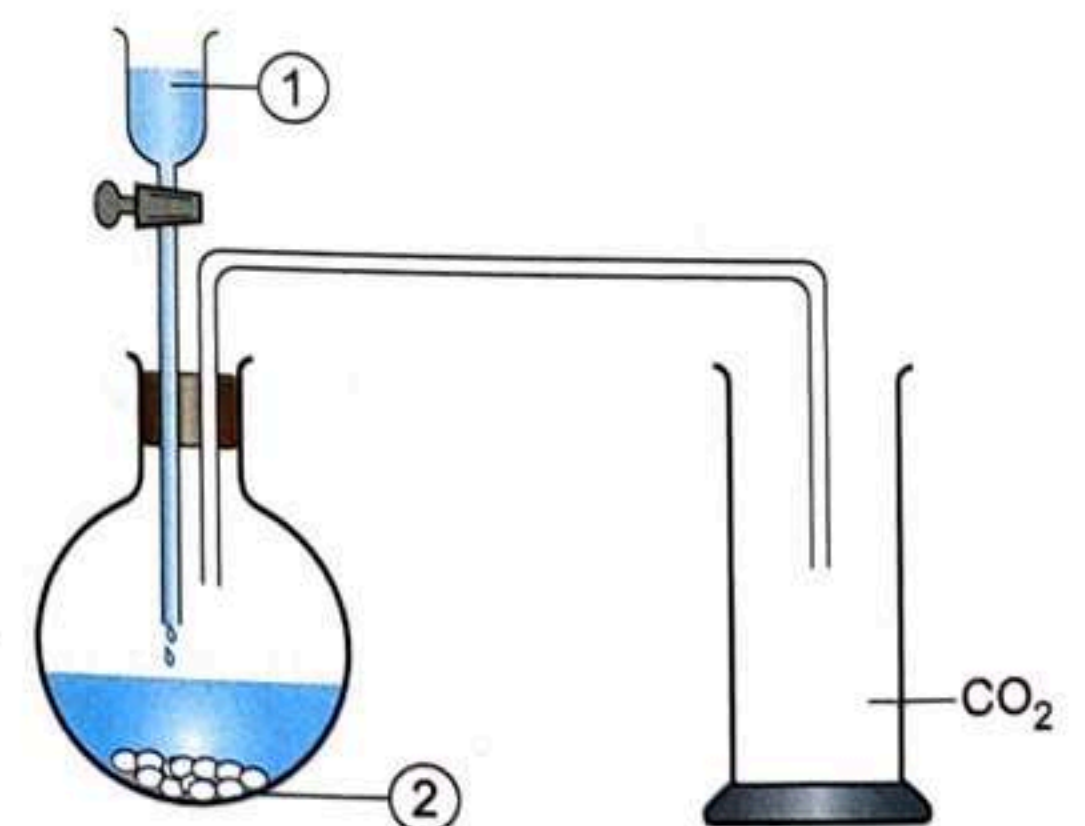
1. Label the figure :
 - ①
 - ②
2. Carbon dioxide is collected by upward displacement of air, why ?

.....

[C] Mention one function of each of the following :

1. Celsius thermometer.

.....



2. The ozone layer.
.....

3. Oxy-acetylene flame.
.....

2. [A] Choose the correct answer :

1. The catalyst which used in preparation of oxygen gas in laboratory is
 a. sodium carbonate. b. copper oxide.
 c. manganese dioxide. d. carbon dioxide.
2. Newton is equal to the weight of a body, its mass is
 a. 10 gm. b. 100 gm. c. 1000 gm. d. 10000 gm.
3. Nitrogen molecule consists of nitrogen atoms.
 a. four b. three c. two d. five
4. The device of measuring weight is
 a. sensitive balance. b. spring scale.
 c. digital scale. d. scale with pointer.

[B] Give reasons for :

1. The withdrawal of the hand quickly when it suddenly touches a hot surface.
.....
2. Oxygen gas is collected by downward displacement of water.
.....
3. The handles of cooking utensils are made of plastic or wood.
.....

[C] Give one example of :

1. Immovable joints. (.....)
2. Slightly movable joints. (.....)

3. [A] Write the scientific term :

1. A chemical substance that remains without any change in its quantity and structure during the chemical reaction. (.....)
2. The liquid that used in making the medical and Celsius thermometer. (.....)
3. A mixture of different gases that surrounds the Earth. (.....)
4. A rapid union between oxygen and an element, producing heat and light. (.....)

5. The materials that let heat flow through. (.....)
6. A gas is used by legumes in the formation of their proteins. (.....)

[B] If the object mass = 3 kg. on the Earth's surface, calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

3. Its weight on the moon.

.....

[C] Correct the underlined parts is the following statements :

1. Newton is the amount of matter in an object. (.....)
2. Vinegar is used in sterilizing the medical thermometer before usage. (.....)
3. Water is composed of oxygen and Nitrogen. (.....)

4. [A] What happens when ... ?

1. The percentage of carbon dioxide in air increases.

.....

2. Damage of medulla oblongata.

.....

3. There is no oxygen in the atmospheric air.

.....

[B] Compare between :

Points of comparison	Cranial nerves	Spinal nerves
Definition :
Number :

[C] Cross out the odd word :

1. Humerus bone – Shaft bones – Forearm bones – Hand bones. (.....)
2. Two lower limbs – Skull – Backbone – Ribcage. (.....)

13

Assuit Governorate

Science Inspectorate

Answer the following questions :

1. Complete the following :

1. The main center of the control in your body is and it is found inside a bony case called
2. Oxygen is prepared from in the presence of
3. The number of vertebrae of vertebral column is
4. The weight of any object is measured by using the

2. [A] Write the scientific term :

1. An organ responsible for the reflex actions of the body. (.....)
2. A tool used to measure human body temperature. (.....)
3. A flame used in cutting and welding metals. (.....)
4. The measuring unit of mass which is almost equal to the mass of one liter of water. (.....)

[B] Give reasons for :

1. Ozone gas is very important in nature.
.....
2. Cerebellum has a great importance during movement of the body.
.....

3. [A] Put (✓) or (✗) in front of each statement and correct the false ones :

1. The location of medulla oblongata is below cerebellum and joins the brain to the spinal cord. ()
2. Oxygen gas is used in cooling. ()
3. The liquid used in clinical thermometer is alcohol. ()
4. The mass of the body changes as its location changes. ()

[B] Calculate the mass of a body its weight equals 300 Newton.
.....

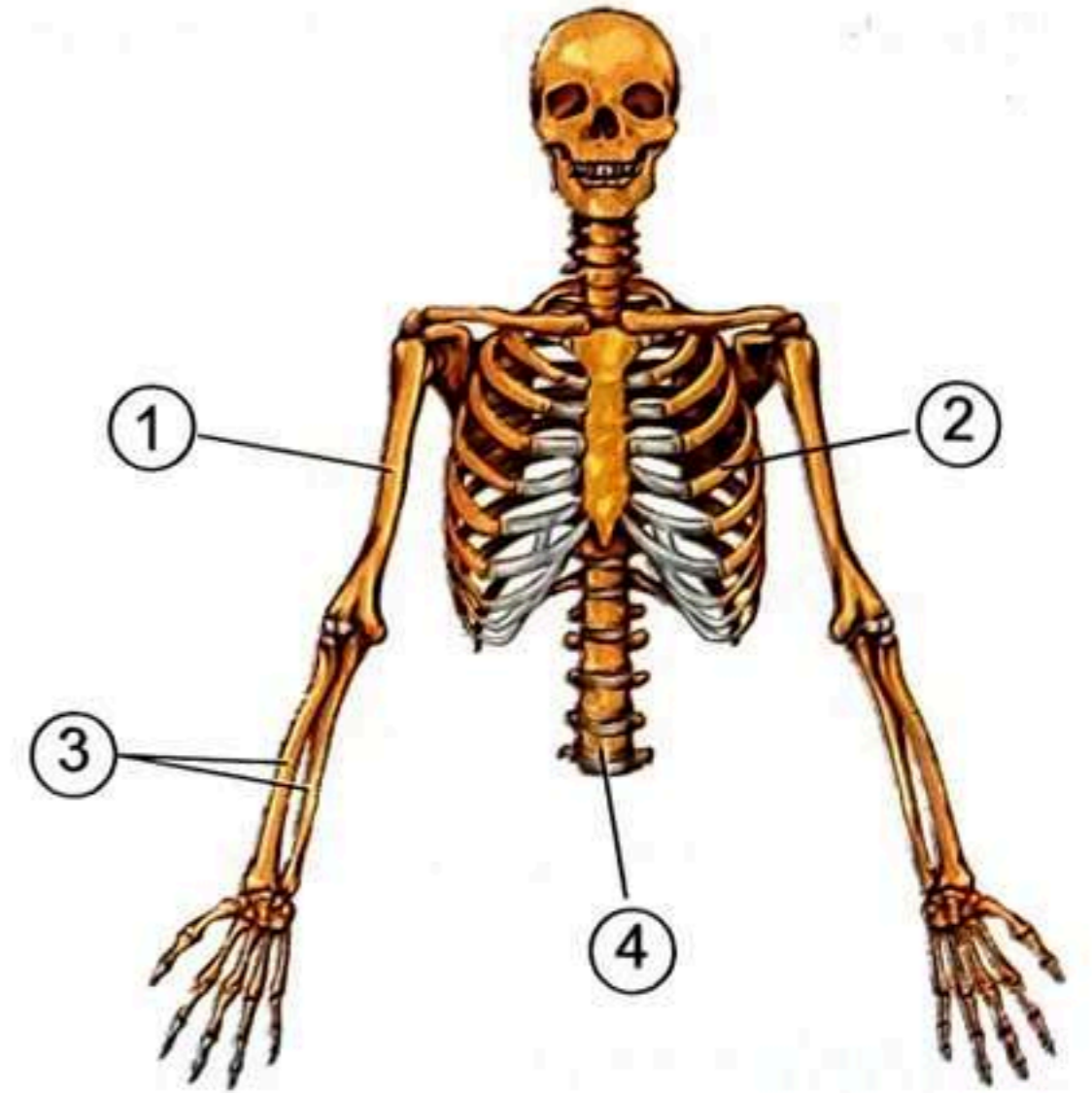
4. [A] What happens when ... ?

1. Increasing the percentage of carbon dioxide in atmosphere.
.....

2. The knee joint becomes from wide movement joints.

[B] Look at the opposite figure, then answer :

- ①
- ②
- ③
- ④



14

Qena Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

1. There is a constriction in the thermometer.
2. The number of cranial nerves in human is and the number of spinal nerves is
3. Weight is measured by using, while mass is measured by using
4. In photosynthesis process, the plant absorbs gas and produces gas.
5. is the degree of hotness or coldness of a body.

[B] Mention one function or one use for each of the following :

1. The spinal cord :
2. The Celsius thermometer :

2. [A] Write the scientific term :

1. Mixture of gases surrounding the Earth. (.....)
2. The building unit of the nervous system. (.....)
3. The used liquid in thermometers. (.....)
4. A flame is used in cutting and welding metals. (.....)

[B] Give reasons for the following statements :

1. The yeast is added to dough.

.....

2. Damage the medulla oblongata lead to death.

.....

3. [A] Choose the correct answer :

1. is a good conductor of heat.

a. Plastic

b. Copper

c. Glass

2. Nitrogen represents % of the Earth's atmosphere.

a. 21

b. 0.03

c. 78

3. Joints between skull bones are joints.

a. immovable

b. slightly movable

c. freely movable

4. The largest part of the brain is

a. cerebellum.

b. cerebrum.

c. medulla oblongata.

[B] If an object's mass = 5 kg. on the Earth, calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

4. [A] Put (✓) or (✗) in front of the following statements :

1. Handles of cooking pots are made of plastic. ()

2. Carbon dioxide molecule consists of one oxygen atom combined with two carbon atoms. ()

3. Cerebellum contains centers of thinking and memory. ()

4. The scale of medical thermometer starts from 30°C to 42°C. ()

[B] The shown apparatus represents the preparation of oxygen gas in the laboratory :

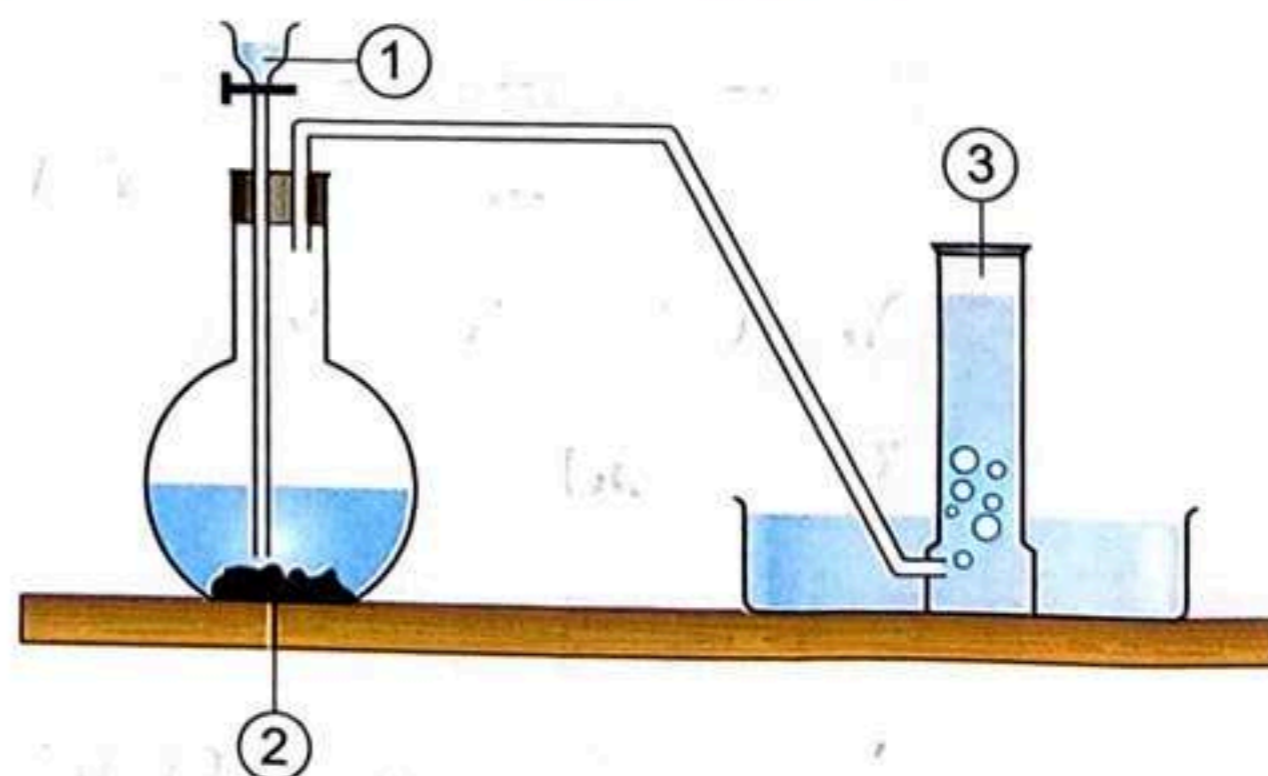
- Label the figure :

①

②

③

- Oxygen gas is collected by



15

South Sinai Governorate

Science Inspectorate

Answer the following questions :

1. [A] Complete the following :

1. We can measure the mass of jewels by using the , while we can measure the weight of an object by using the
2. The bones of limbs are connected to shoulder bones, while the bones of limbs are connected to pelvic bones.
3. The graduation of medical thermometer starts from°C to °C.
4. The plant absorbs gas in photosynthesis process, while it produces gas.
5. The number of cranial nerves is pairs, while the number of spinal nerves is pairs.

[B] Write one function of :

1. The cerebrum.

.....

2. Medical thermometer.

.....

2. [A] Put (✓) or (✗) :

1. Copper is the best heat conductor. ()
2. Oxygen gas occupies 0.03% of the atmospheric air components. ()
3. The skull has immovable joints. ()
4. A white substance is formed when oxygen reacts with lighted magnesium ribbon. ()
5. Cartilages prevent the friction between the bones of vertebrae. ()
6. The outer surface of the cerebral hemisphere is called cerebral cortex and it is a white matter. ()

[B] If the object's mass = 6 kg. on the Earth surface, calculate :

1. Its mass on the moon.

.....

2. Its weight on the Earth.

.....

3. Its weight on the moon.

.....

[C] Give reasons for :

1. Handles of cooking utensils made of wood or plastic.
.....
2. Carbon dioxide gas is collected by upward displacement of air.
.....
3. Yeast is added to dough.
.....
.....

3. [A] Choose the correct answer :

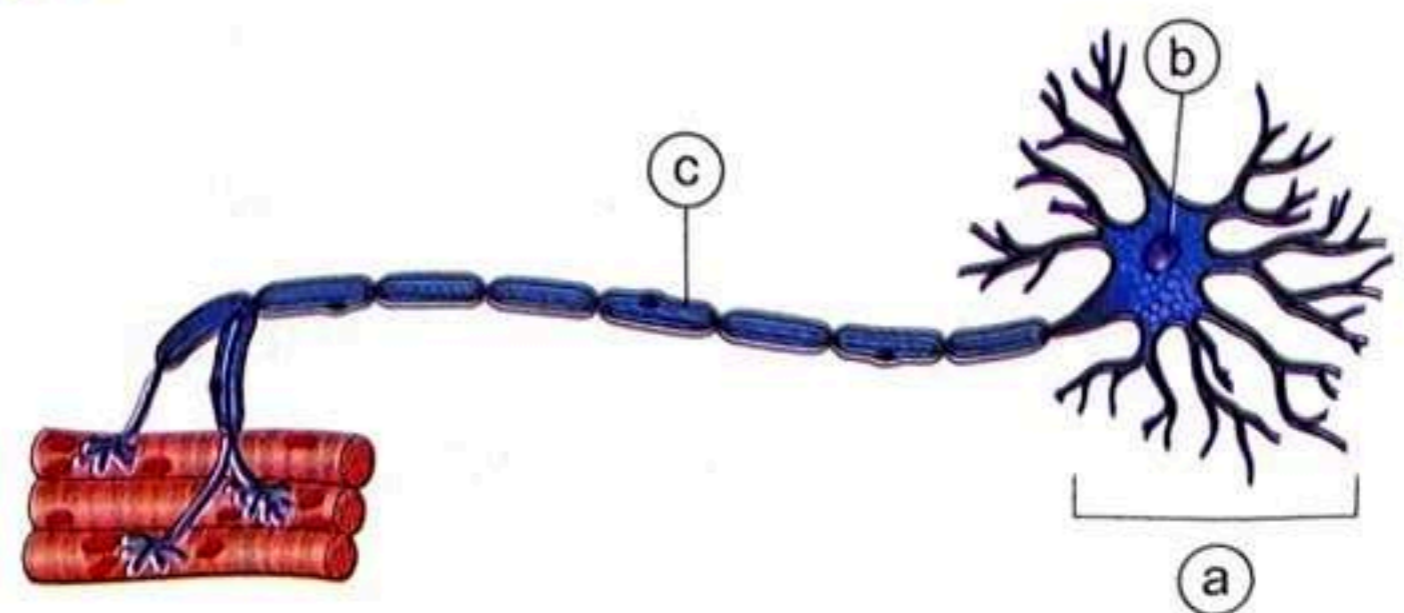
1. The used liquid in medical thermometer is
a. water. b. alcohol. c. mercury.
2. gas is used in making soft drinks.
a. Oxygen b. Nitrogen c. Carbon dioxide
3. controls the reflex actions.
a. Spinal cord b. Medulla oblongata c. Cerebellum
4. is responsible for maintaining the body balance during the movement.
a. Medulla oblongata b. Spinal cord c. Cerebellum
5. is used as a catalyst during the preparation of oxygen gas.
a. Manganese dioxide b. Iron c. Nitrogen

[B] What happens when ?

1. Damage of medulla oblongata.
.....
2. The percentage of carbon dioxide gas in air increases.
.....
3. There are no joints between bones of human body.
.....

[C] Look at the opposite figure, then answer :

1. This is the cell.
2. Write the labels :
a)
b)
c)



4. [A] Write the scientific term :

1. A gas used by legumes in formation of its proteins. (.....)
2. A gas consists of three atoms of oxygen. (.....)
3. The measuring unit of mass which equals the mass of one liter of distilled water at the normal temperature. (.....)
4. Materials that let heat flow through. (.....)
5. The location at which bones meet each other. (.....)
6. A gas produced from the reaction between diluted hydrochloric acid and calcium carbonate. (.....)

[B] Choose from column (B) what suits it in column (A) :

(A)	(B)
1. The backbone	a. knee.
2. The ribcage	b. shoulder.
3. Oxygen gas	c. consists of 33 vertebrae.
4. Nitrogen gas	d. hydrogen peroxide is used in its preparation.
5. Slightly movable joint	e. protects the brain.
6. Freely movable joint	f. consists of 12 pairs of ribs.
	g. it represents 78% of the volume of atmospheric air.

1.

2.

3.

4.

5.

6.

Cairo Governorate

1

Saint Joseph School

1. (A) 1. Balance 2. Plastic – wood
 3. Thermometer 4. 21 – 0.03
 5. Nervous system 6. Skull
- (B) 1. extinguish – oxygen
 2. turbid – carbon dioxide
- (C) 1. They are used in making :
 - Cooking pots.
 - Kettles that are used in houses and factories.
2. It is responsible for regulating the involuntary processes of the body as :
 - Regulating heartbeats.
 - Regulating the movement of the respiratory system parts during breathing.
 - Regulating the movements and functions of the digestive system.

2. (A) 1. c. Gram 2. c. mercury.
 3. d. 78%
 4. a. the body balance.
- (B) 1. Because the consumed oxygen gas during respiration and combustion processes is compensated by the green plants during photosynthesis process.
2. Due to the gravitational force of the Earth to the body in the plane decreases as we go away from the center of the Earth.
- (C) 1. nerve cell (neuron).
 2. • cell body. • axon.

3. (A) 1. (✓) 2. (✗) 3. (✓)
 4. (✓) 5. (✗) 6. (✗)
- (B) 1. Its mass on the moon = 10 kg.
 2. Its weight on the Earth = $10 \times 10 = 100$ Newton.
 3. Its weight on the moon = $100 \times \frac{1}{6} = 16.66$ Newton.
- (C) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
 2. It will cause global warming and suffocation of living organisms.

4. (A) 1. Mass. 2. Celsius degree.
 3. Oxy-acetylene flame.
 4. Carbon dioxide gas.
 5. Spinal cord. 6. Ribcage.

(B)

P.O.C.	Immovable joints	Freely movable joints
Definition :	They don't allow any movement.	They allow movement in all directions.
Example :	Joints between the bones of skull.	Shoulder joint.

2

Akhnaton Egyptain Language School

1. (A) 1. kilogram – Newton.
 2. pressure -- cooling.
 3. Medulla oblongata – skull
 4. Clear limewater
 5. making cooking pots.
- (B) 1. Because the mass of the moon is less than the mass of the Earth, so the gravity of the moon is less than that of the Earth.
2. Because mercury :
 - is a good conductor of heat.
 - does not stick to the walls of the capillary tube.
 - gives a wide range to temperature measurement.
 - is a regular expanding material.
 - is a liquid metal that can be seen easily through the thermometer glass.
2. (A) 1. Heat insulators. 2. Ozone gas.
 3. Reflex action. 4. Temperature.
 5. Weight.
 6. Nerve cell (Neuron).
 7. The medical thermometer.
 8. The axial skeleton.
- (B) 1. We cannot control burning processes as oxygen helps in burning.
 2. The human body cannot move.
 3. Its weight will be decreased as the gravitational force of the Earth for this body decreases.
 4. The nervous system will be exhausted as they lead to nervous tension and affect the heartbeats and the sleeping periods.

3. (A) 1. b. oxygen 2. a. dendrites.
 3. b. oxygen and hydrogen.
 4. a. 78 5. c. shoulder
 6. c. carbon dioxide
- (B) 1. It is used to measure the weight of any object.
 2. They prevent friction between vertebrae during movement.
 3. It is used in making soft drinks.
 4. It is used in cutting and welding metals.
- (C) Its mass on the moon's surface = 60 kg.

4. (A) 1. ribcage 2. photosynthesis
 3. the roots 4. 0°C to 100°C.
 5. Oxidation 6. 10 pairs

(B)

P.O.C.	Cranial nerves	Spinal nerves
Definition :	They are nerves that emerge from the brain.	They are nerves that emerge from the spinal cord.
Number :	12 pairs.	31 pairs.

- (C) ① Femur bone. ② Shaft bones.

3 Futures Language Schools

1. (A) 1. a. photosynthesis 2. c. mercury.
 3. c. (a) and (b). 4. b. Its mass $\times 10$
 5. a. synapse
 6. a. carbon dioxide 7. c. (-39 : 357)
 8. b. Manganese dioxide

- (B) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
 2. Its weight increases.

2. (A) 1. 33 – 12 2. carbon dioxide
 3. cerebellum
 4. hydrogen peroxide – manganese dioxide.

- (B) 1. Doing physical exercises.
 2. Staying away from addiction.

- (C) 1. calcium carbonate.
 2. dilute hydrochloric acid.

3. (A) 1. Because the mass of the moon is less than the mass of the Earth, so the gravity of the moon is less than that of the Earth.

2. To prevent mercury from returning back to the bulb quickly in order to read the measurement easily.

- (B) 1. Nerve cell (Neuron). 2. Ozone gas.
 3. Weight. 4. Skull.
 5. Temperature. 6. The atmosphere.
 7. Dendrites. 8. Heat insulators.

4. (A) 1. It directs and coordinates all the processes, ideas, behaviours and emotions.
 2. - It delivers the nerve messages from the body organs to the brain and vice versa.
 - It is responsible for the reflexes (a group of reflex actions).

- (B) 1. (x) 2. (x) 3. (x)
 4. (✓) 5. (✓) 6. (x)
 7. (✓) 8. (x)

4 Manarat Al Farouk Islamic School

1. (A) 1. Cerebellum. 2. Nitrogen gas.
 3. Manganese dioxide.
 4. Celsius thermometer.
 5. Newton.
 6. Carbon dioxide gas.

- (B) 1. Due to the reflex action made by the spinal cord.
 2. Because it is heavier than air.
 3. Because it will be broken, as the temperature of boiling water is 100°C, while the medical thermometer temperature range is 35°C to 42°C.

2. (A) 1. Burning 2. 78%
 3. Weight 4. 1 kg.
 5. Cerebellum 6. 12

- (B) 1. It helps in the decomposition of hydrogen peroxide, without any change in its quantity or structure.
 2. It protects the brain.
 3. They are connected to the neighbouring neurons to form synapse.

3. (A) 1. increases. 2. Carbon dioxide
 3. during surgeries – during diving.
 4. decreases. 5. Knee joint

- (B) 1. c. 50 N. 2. a. foot bones.
3. b. Air 4. d. white matter.
5. c. medical thermometer.
6. c. spring scale

4. (A) 1. Kilogram. 2. The brain.
3. Wrist joint.
4. The distance between the object and the center of the planet.
5. Making soft drinks. 6. Dust particles.
(B) 1. Oxygen gas and water are produced.
2. Oxy-acetylene flame is formed.
3. They prevent the leakage of heat and keep our bodies warm.

5 Bloom Language School

1. (A) 1. 33 vertebrae.
2. hydrogen peroxide – manganese dioxide.
3. 43 pairs. 4. spring scale.
5. Oxygen 6. plastic.
7. 78
8. increasing carbon dioxide
(B) 1. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).
2. Because it doesn't burn and doesn't help in burning.

2. (A) 1. a. spinal nerves. 2. d. carbon.
3. c. 12 4. c. carbon dioxide
5. a. Axon of nerve cell
6. a. spinal cord.
(B) 1. Legumes as clover, peas and soybeans can't make protein.
2. Living organisms cannot respire, so they will die.
3. The nervous system will be exhausted.

3. (A) 1. The locomotory system.
2. Reflex action.
3. The atmospheric air.
4. The medical thermometer.
5. Weight. 6. Mass.
(B) 1. (✓) 2. (✓) 3. (✗)
4. (✓) 5. (✗) 6. (✗)

4. (A) ① Cerebrum. ② Cerebellum.
 ③ Medulla oblongata.
 – brain.
 – It maintains the balance of the body during the movement.
(B) a. Its mass on the moon = 30 kg.
b. Its weight on the Earth = $30 \times 10 = 300$ Newton.
c. Its weight on the moon = $300 \times \frac{1}{6} = 50$ Newton.

Giza Governorate

6 Orman College School

1. (A) 1. kilogram – Newton. 2. Copper
3. 35 – 42
4. oxygen gas – manganese dioxide.
(B) 1. d 2. a
3. b 4. c
2. (A) 1. (✓) 2. (✓) 3. (✗) 4. (✗)
(B) 1. To prevent mercury from returning back to the bulb quickly in order to read the measurement easily.
2. Because it is heavier than air.
3. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).
4. Because nervous system exhausted as they affect sleeping periods, affect heartbeats and lead to nervous tension.
3. (A) 1. Weight. 2. Mercury.
3. Reflex action. 4. Nitrogen gas.
(B) ① Hydrogen peroxide.
 ② Manganese dioxide.
 ③ Oxygen gas.
 ④ Water.
4. (A) 1. b. the Earth.
2. b. glass and wood.
3. c. carbon dioxide.
4. a. joints between skull bones.
5. b. letter H.

7

6th of October Directorate

- (B) a. Its mass on the moon = 6 kg.
 b. Its weight on the Earth's surface = $6 \times 10 = 60$ Newton.
1. (A) 1. Backbone. 2. The joint.
 3. Oxidation. 4. Nitrogen gas.
 (B) 1. The heat will transfer from my hand to the piece of ice so, I feel cold.
 2. The weight of the object decreases as the gravitational force of the Earth for this object decreases.
2. (A) 1. c. acetylene. 2. d. sternum.
 3. c. 2000 g. 4. a. copper.
 (B) 1. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).
 2. Because mercury :
 - is a good conductor of heat.
 - is a liquid metal that can be seen easily through the thermometer glass.
 - is a regular expanding material.
 - doesn't stick to the walls of the capillary tube.
 - remains in a liquid state between (-39°C) and (357°C) .
3. (A) 1. high – low 2. constant – variable
 3. 12 pairs – 31 pairs.
 4. hydrogen peroxide – manganese dioxide.
 (B) 1. reflex action. 2. ethyl alcohol
4. (A) a. - dilute hydrochloric acid.
 - calcium carbonate.
 b. upward displacement of air – heavier than air.
 c. It is used in making dry ice.
 (B) 1. Its mass on the moon surface = 12 kg.
 2. Its weight on the Earth = Its mass (kg.) $\times 10$
 = $12 \times 10 = 120$ Newton.
 3. Its weight on the moon = Its weight on the Earth $\times \frac{1}{6}$
 = $120 \times \frac{1}{6} = 20$ Newton.

8

Alexandria Governorate

1. (A) 1. balance scale – spring scale.
 2. Copper – iron 3. Ethyl alcohol
 4. cutting – welding 5. spinal cord.
 (B) 1. Because the Earth has greater mass than the moon, so the gravitational force of the Earth is greater than that of the moon.
 2. Because it helps in burning.
2. (A) 1. a. dry ice. 2. a. voluntary
 3. a. two bones. 4. b. mercury.
 (B) 1. All the involuntary processes of the body will be disturbed and causes death.
 2. Magnesium ribbon keeps burning for a short time producing magnesium oxide which is a white substance and carbon (coal) which is a black substance.
3. (A) 1. (x) ... decreasing weight only of an object occurs.
 2. (x) All metals are ...
 3. (x) ... manganese dioxide.
 4. (x) Carbon dioxide gas is ...
 (B) 1. Ozone gas. 2. Cerebellum.
 3. Oxygen gas.
 4. Global warming phenomenon.
4. (A) 1. nerve cell (neuron).
 2. ① The cell body. ② Dendrites.
 ③ Axon.
 (B) 1. Its mass on the moon = 3 kg.
 2. Its weight on the Earth = $3 \times 10 = 30$ Newton.
 (C) 1. 12 pairs. 2. 33
 3. 42°C . 4. 78%

9

Kalyoubia Governorate

1. (A) 1. $0^{\circ}\text{C} - 100^{\circ}\text{C}$.
 2. carbon dioxide – limewater.
 3. lungs – heart. 4. 21 – nitrogen
 5. plastic. 6. 100
 (B) a. carbon dioxide
 b. 1. dilute hydrochloric acid.
 2. calcium carbonate.
 3. tap. 4. photosynthesis

- (C) - Its weight on the Earth = 90×10
= 900 Newton.
- Its weight on the moon = $900 \times \frac{1}{6}$
= 150 Newton.
- Its mass on Mars planet = 90 kg.

2. (A) 1. two 2. Cerebellum
 3. 35°C to 42°C. 4. gray matter
- (B) 1. Immovable. 2. Freely movable.
 3. Slightly movable. 4. Freely movable.
- (C) 1. To prevent mercury from returning back to the bulb quickly in order to read the measurement easily.
 2. Because mass is a constant value, and doesn't change by changing the place.
 3. Because nitrogen gas doesn't help in burning.
 4. Due to the reflex action made by the spinal cord.

3. (A) 1. The peripheral nervous system.
 2. Balance scale.
 3. Iron. 4. Ethyl alcohol.
 5. Oxygen gas. 6. Newton.
- (B) 1. b 2. c 3. a 4. e
- (C) 1. The medical thermometer will be damaged, because the boiling point of water is 100°C.
 2. The green plants cannot make photosynthesis process, so the percentage of oxygen will decrease in the atmosphere and living organisms will die.
 3. Friction occurs between the vertebrae causing harms to the backbone.
 4. Hydrogen peroxide is decomposed into water and oxygen gas, while manganese dioxide doesn't change in its quantity or structure.

4. (A) 1. b. Weight 2. b. burning.
 3. a. Carbon dioxide 4. a. 40 kg.
 5. c. proteins. 6. a. more than
- (B) 1. (x) 2. (✓) 3. (x)
 4. (x) 5. (x) 6. (✓)
- (C) 1. Sensitive balance.
 2. Carbon dioxide gas.
 3. Wool.

10 **Menofia Governorate**

1. (A) 1. dilute hydrochloric acid – calcium carbonate.
 2. sternum. 3. pelvic – shoulder
 4. global warming
- (B) 1. (✓) 2. (x) 3. (✓)
 4. (x) 5. (x) 6. (✓)

2. (A) 1. Fermentation process.
 2. Synapse. 3. Celsius degree.
 4. Legumes. 5. Nitrogen oxides.
 6. The axial skeleton.
- (B) 1. Magnesium ribbon keeps burning for a short time producing magnesium oxide which is a white substance and carbon (coal) which is a black substance.
 2. The burning processes increase.
 3. The medical thermometer will be damaged, because the boiling point of water is 100°C.

3. (A) 1. Its mass on moon = 30 kg.
 2. Its weight on the Earth = 30×10
 = 300 Newton.
 3. Its weight on moon = $300 \times \frac{1}{6}$
 = 50 Newton.
- (B) 1. Newton 2. Spinal nerves.
 3. Femur.
- (C) ① Hydrogen peroxide.
 ② Manganese dioxide.
 ③ Oxygen gas.
 ④ Water.
 - catalyst.

4. (A) 1. To avoid any vibration of the balance scale.
 2. Because it remains in a liquid state between (– 39°C) and (357°C).
 3. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).
- (B) 1. It is used in refrigeration.
 2. It helps in movement between bones.
 3. It protects the Earth from harmful radiations that come from the Sun.

4. It maintains the balance of the body during the movement.
5. They allow eating, drinking, writing and holding things.
6. They prevent friction between vertebrae during movement.

11

Dakahlia Governorate

1. (A) 1. dissolves – rarely dissolves.
2. slightly movable – freely movable.
3. brain – backbone
4. balance – spring
(B) 1. The nervous system will be exhausted as they lead to nervous tension and affect the heartbeats and sleeping periods.
2. It will be turned into milky.
2. (A) 1. (x) 2. (x) 3. (x)
4. (✓) 5. (✓) 6. (✓)
(B) 1. (a) Hydrogen peroxide.
(b) Oxygen gas.
2. The quantity and structure of manganese dioxide doesn't change and hydrogen peroxide is decomposed into water and oxygen gas.
3. (A) 1. b. 0.1 kg.
2. c. medulla oblongata.
3. d. Aluminium 4. d. mercury.
5. c. dendrites. 6. b. shoulder
(B) 1. Because it protects the living organisms from harmful radiations that come from the Sun.
2. To force the mercury back to the bulb.
3. Because it doesn't burn and doesn't help in burning.
4. (A) 1. Temperature. 2. Nervous system.
3. Nitrogen gas.
4. Global warming phenomenon.
5. The backbone. 6. Ozone gas.
(B) - Its weight on Earth's surface = $0.6 \times 10 = 6$ Newton.
- Its weight on moon's surface = $6 \times \frac{1}{6} = 1$ Newton.
(C) 1. 12 pairs. 2. 43 pairs.

12

Ismailia Governorate

1. (A) 1. 35 – 42 2. Newton – kilogram.
3. the brain – the spinal cord.
(B) 1. (1) Dilute hydrochloric acid.
(2) Calcium carbonate.
2. Because it is heavier than air.
(C) 1. It is used in measuring the temperature of liquids.
2. It protects the Earth from harmful radiations that come from the Sun.
3. It is used in cutting and welding of metals.
 2. (A) 1. c. manganese dioxide. 2. b. 100 gm.
3. c. two 4. b. spring scale.
(B) 1. Due to the reflex action made by the spinal cord.
2. Because it rarely dissolves in water.
3. Because they are heat insulators.
(C) 1. Joints between the skull bones.
2. Elbow joint.
 3. (A) 1. Catalyst. 2. Mercury.
3. The atmosphere. 4. Burning.
5. Heat conductors. 6. Nitrogen.
(B) 1. Its mass on the moon = 3 kg.
2. Its weight on the Earth = $3 \times 10 = 30$ Newton.
3. Its weight on the moon = $30 \times \frac{1}{6} = 5$ Newton.
(C) 1. Mass 2. Ethyl alcohol
3. hydrogen.
 4. (A) 1. Global warming phenomenon occurs and the living organisms will suffocate.
2. All the involuntary processes of the body will be disturbed and causes death.
3. All living organisms will die.
(B)
- | P.O.C. | Cranial nerves | Spinal nerves |
|--------------|---|---|
| Definition : | They are nerves that emerge from the brain. | They are nerves that emerge from the spinal cord. |
| Number : | 12 pairs. | 31 pairs. |
- (C) 1. Shaft bones.
2. Two lower limbs.

13**Assuit Governorate**

1. 1. the brain – skull.
2. hydrogen peroxide dissociation – manganese dioxide.
3. 33 vertebrae.
4. spring scale.
2. (A) 1. Spinal cord.
2. Medical thermometer.
3. Oxy-acetylene flame.
4. Kilogram.
(B) 1. Because it protects the Earth from harmful radiations that come from the Sun.
2. Because it maintains the body balance during movement.
3. (A) 1. (✓)
2. (✗) Carbon dioxide gas ...
3. (✗) ... mercury.
4. (✗) The weight ...
) Its mass = $\frac{\text{Its weight}}{10} = \frac{300}{10} = 30 \text{ kg.}$
4. (A) 1. Global warming phenomenon occurs and the living organisms will suffocate.
2. It allows movement in all directions.
(B) 1. Humerus bone. 2. Ribcage.
3. Forearm bones. 4. Backbone.

14**Qena Governorate**

1. (A) 1. medical 2. 12 pairs – 31 pairs.
3. spring scale – balance scale.
4. carbon dioxide – oxygen
5. Temperature
(B) 1. It is responsible for reflex actions.
2. It is used in measuring the temperature of liquids.
2. (A) 1. The atmosphere.
2. Nerve cell (Neuron).
3. Mercury. 4. Oxy-acetylene flame.
(B) 1. Because yeast produces carbon dioxide gas by fermentation process, which expands by heat making bread porous and tasty.

2. Because medulla oblongata controls all the involuntary processes (as heartbeats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).

3. (A) 1. b. Copper 2. c. 78
3. a. immovable 4. b. cerebrum.
(B) 1. Its mass on the moon = 5 kg.
2. Its weight on the Earth
= Its mass (kg.) \times 10
= 5 \times 10 = 50 Newton.
4. (A) 1. (✓) 2. (✗) 3. (✗) 4. (✗)
(B) ① Hydrogen peroxide.
② Manganese dioxide.
③ Oxygen gas.
- downward displacement of water.

15**South Sinai Governorate**

1. (A) 1. sensitive balance – spring scale.
2. upper – lower 3. 35 – 42
4. carbon dioxide – oxygen
5. 12 – 31
(B) 1. It contains the centers of thinking and memory.
2. It is used in measuring the temperature of the human body.
2. (A) 1. (✓) 2. (✗) 3. (✓)
4. (✓) 5. (✓) 6. (✗)
(B) 1. Its mass on the moon = 6 kg
2. Its weight on the Earth = 6 \times 10
= 60 Newton.
3. Its weight on the moon = 60 \times $\frac{1}{6}$
= 10 Newton.
(C) 1. Because they are heat insulators.
2. Because it is heavier than air.
3. Because yeast produces carbon dioxide gas by fermentation process, which expands by heat making bread porous and tasty.

- 3.** (A) 1. c. mercury.
 2. c. Carbon dioxide
 3. a. Spinal cord
 4. c. Cerebellum
 5. a. Manganese dioxide
- (B) 1. All the involuntary processes of the body will be disturbed and causes death.
 2. Global warming phenomenon occurs and the living organisms will suffocate.
 3. The human body can't move.
- (C) 1. nerve
 2. (a) The cell body.
 (b) Nucleus.
 (c) Myelin sheath.

- 4.** (A) 1. Nitrogen gas.
 2. Ozone gas.
 3. Kilogram.
 4. Heat conductors.
 5. The joint.
 6. Carbon dioxide gas.
- (B) 1. c 2. f 3. d
 4. g 5. a 6. b